CALIFORNIA ENERGY COMMISSION

# EMERGING RENEWABLES PROGRAM

**FOURTHTHIRD EDITION** 

FINAL DRAFT GUIDEBOOK

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Arnold Schwarzenegger, Governor

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Mike Chrisman Secretary for Resources These guidelines were formally adopted by the California Energy Commission on February 19, 2003, pursuant to Public Utilities Code section 383.5, subdivision (h) and subsequently revised pursuant to this authority on December 17, 2003.—These guidelines were revised again pursuant to this authority and Public Resources Code section 25747, subdivision (a), on May\_-19,\_-2004\_ and June\_-30,\_-2004\_ and January 19, 2005.

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## I. - Introduction

This *Emerging Renewables Program Guidebook* is one of several guidebooks the California Energy Commission (Energy Commission) has adopted to implement the Renewable Energy Program pursuant to Senate Bill 1038<sup>1</sup> (SB 1038; Sher, Chapter 515, Statutes Of 2002) as amended by and Senate Bill 183<sup>2</sup> (SB 183, Sher, Statutes of 2003, Chapter 666).—It describes the requirements for receiving funding for the installation and operation of renewable energy systems technologies under the Emerging Renewables Program element of the Renewable Energy Program.<sup>3</sup>

The Energy Commission has adopted other guidebooks to address the requirements for the other elements of the Renewable Energy Program and guidelines governing the overall administration of the Renewable Energy Program.—\_The *Overall Program Guidebook* describes how the Renewable Energy Program will be administered and includes information and requirements that apply to all program elements of the Renewable Energy Program.

Applicants requesting funding under the Emerging Renewables Program must satisfy the requirements contained in both the *Overall Program Guidebook* and this *Emerging Renewables Program Guidebook.*—These guidebooks replace the *Overall Guidelines for the Renewable Resource Trust Fund, Fifth Edition* and the previous guidebooks governing the Emerging Renewables Program (the Emerging Renewables Program Guidebook, Third Second Edition).—Applications for funding approved under the previous program guidebook remain governed by the previous guidebooks until the projects are completed, expired, or cancelled.

The Emerging Renewables Program builds on the experience of the Emerging Renewable Buydown Program (ERBP), which began in 1998 and operated through most of 2002.—Over 3800 new systems were installed through the ERBP from 1998 through 2002 and a total exceeding 7,20011,000 systems were installed by November January 2004.—Most of these systems utilized solar photovoltaic (PV) technology which uses a semiconductor to convert sunlight directly into electricity.

#### A. Purpose

The Emerging Renewables Program (ERP) was created to help develop a self-sustaining market for renewable energy systems that supply on-site electricity needs across California.—\_Through this program, the Energy Commission provides

<sup>1</sup>/<sub>2</sub> Stats. 2002, Ch. 515, §§ 15 & 16, as codified in Public Utilities Code §§ 383.5 and 445.

<sup>&</sup>lt;sup>2</sup> Stats. 2003, Ch. 666, §§ 1 & 2, as codified in Public Resources Code §§ 25401.6, and 25740 – 25751.

<sup>\*</sup>Emerging technologies currently include photovoltaics, solar thermal electric, fuel cells and wind turbines.

funding to offset the cost of purchasing <u>and installing</u> new renewable energy systems using emerging <u>renewable</u> technologies.

The goal of the ERP is to reduce the net cost of on-site renewable energy systems to end use consumers, and thereby stimulate demand and increased sales of such systems.—Increased sales are expected to encourage manufacturers, sellers, and installers to expand operations, improve distribution, and reduce system costs.

The ERP is one of several program elements within the Energy Commission's Renewable Energy Program.—\_Funding for the Renewable Energy Program is collected from the ratepayers of four investor-owned utilities in California to support existing, new, and emerging renewable electricity generation technologies.—\_For more information about the Renewable Energy Program please visit the Energy Commission's website at [www.consumerenergycenter.org].

For consumer tips on purchasing a renewable energy system to supply on-site electricity needs please refer to Appendix 2 of this guidebook.—Also see *A Guide to Photovoltaic (PV) System Design and Installation,* June 2001, (P500-01-020) and *Buying a Small Wind Electric System,* February 2002 for further information.—These and other documents are also available on the Energy Commission's website.

#### B. Overview

The ERP provides consumers of electricity with a financial incentive to install renewable energy systems on their property.—\_The financial incentive varies based on system size, technology, and type of installation.—\_The incentive is paid once the system is installed and operational.—\_The consumer must apply to the Energy Commission for funding using the protocols in this guidebook.

To qualify for an incentive, both the consumer and the renewable energy system must satisfy a number of requirements.—\_The consumer must receive electricity distribution service at the site of installation from an existing in-state electrical corporation contributing funds to support the program.—\_These electrical corporations are Pacific Gas & Electric Company (PG&E), Southern California Edison Company (SCE), San Diego Gas & Electric Company (SDG&E) and Southern California Water Company (doing business as Bear Valley Electric Service (BVE)).—\_The renewable energy system must utilize an emerging renewable technology, such as solar photovoltaic, solar thermal-electric, fuel cells, or small wind turbines.<sup>4</sup>—The system must also be interconnected to the utility distribution grid, must use new components that are certified or tested to be reliable, and must come with a five-year warranty.—\_In addition, the renewable energy system must generate electricity to offset the consumer's on-site electrical load.

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<sup>&</sup>lt;sup>4</sup> Rebates are The incentive is available for systems less that 30 kilowatts in size (wind systems up to 50 kilowatts in size may participate, but the incentive rebates for such systems is currently limited to less than 30 kilowatts.) If you have questions or require additional information about the Energy Commission's Emerging Renewables Program, call 1 (800)555-7794.

In most cases, an applicant submits a Reservation Request Form (CEC 1038 R1) and supporting documentation to reserve a fixed amount of program funds.—Once the Reservation Request Form is reviewed and approved, the Energy Commission sends the applicant a Payment Claim Form (CEC 1038 R2) that identifies the amount of funds reserved and the date upon which the reservation expires.—The applicant then proceeds to install an eligible system.—When the system is completed and operational, the applicant then submits the Payment Claim Form and supporting documentation to the Energy Commission.—If the applicant installs an eligible system, meets all program requirements, and submits a completed the Payment Claim Form with supporting documentation prior to the expiration date of the reservation, the Energy Commission reviews the amount reserved and the incentive the applicant is eligible to receive and makes payment in this amount.

For forms or additional information, contact the Energy Commission's Call Center at: 1 (800) 555-7794 or go to [http://www.consumerenergycenter.org/erprebate/index.html]

# II. - What Are the Eligibility Requirements

Currently, four technologies are eligible for ERP funding.—They include the following:

- 1. Photovoltaic the direct conversion of sunlight to electricity.
- 2. Solar Thermal Electric the conversion of sunlight to heat and its concentration and use to power a generator to produce electricity.
- 3. Fuel Cell the conversion of sewer gas, land fill gas, or other renewable sources of hydrogen or hydrogen rich gases into electricity by a direct chemical process.
- 4. Small Wind Turbines small electricity-producing, wind-driven generating systems with a rated output of 50 kilowatts or less.

Other technologies may be added to this category if the criteria identified in <u>Q</u>are met to the Energy Commission's satisfaction.—Systems that use the above technologies must satisfy the following eligibility criteria as explained in this chapter.

### A. System Ownership

Eligible renewable energy systems may not be owned by an electrical corporation as defined in Public Utilities Code section 218, or by a local publicly owned electric utility as defined in Public Utilities Code section 9604(d).

#### **B.** Grid Interconnection

Eligible renewable energy systems must be permanently interconnected to the electrical distribution grid of the utility serving the customer's electrical load.—Portable systems are not eligible.—The site where the system is installed must receive electrical distribution service from PG&E, SCE, SDG&E or BVE.—The system interconnection must comply with applicable electrical codes and utility interconnection requirements.

### C. System Components

The major system components must be certified or approved as described in <u>QQ</u>. Approved major components are on the Energy Commission's lists of eligible <u>equipmentcomponents</u> and are available at:

- 1. [www.consumerenergycenter.org/erprebate] or
- 2. by requesting copies from the Energy Commission call center staff at (800) 555-7794.

The applicant should confirm that the components purchased for a system are eligible when applying for ERP funding.—\_The Energy Commission staff will confirm that equipment identified in a reservation application meets eligibility requirements prior to an application being approved.—\_However, if the applicant begins or completes the installation before the Energy Commission has approved the reservation, equipment

lists may have changed, and significant and costly changes may be needed for the system to comply with the eligibility criteria.

### D. New Equipment

All major system components (requiring certification per section C) must be new and must not have been previously placed in service in any other location or for any other application.—Equipment purchased or installed more than 18 months before applying for a reservation is not eligible.

### E. System Sized to Offset On-site Electricity Load

For all eligible systems regardless of technology, the system must be sized so that the amount of electricity produced by the system primarily offsets part or all of the customer's electrical needs at the site of installation.—The expected production of electricity by the system may not be more than twice the historical or expected electrical needs of the electricity consumer at the site of installation.—In most cases the system size limitation will not affect systems less than 10 kW because the average annual residential electricity consumption in California is about 7,000 kWh/year.—The maximum size of a system that would primarily offset this average load, given conservative system production, is about 13 kW.—See for further details on how to determine the maximum allowed system size.

### F. System Installation

All systems, if installed under contract, must be installed by appropriately licensed California contractors in accordance with rules and regulations adopted by the State of California Contractors' State Licensing Board.—Installation contractors must have an active A, B, or C-10 license, or a C-46 license for photovoltaic systems.

The Energy Commission encourages installation contractors to become certified by the North American Board of Certified Energy Practitioners (NABCEP).

Systems may also be self-installed by the purchaser (owner).— While such installations are eligible <u>for funding</u> without the licensing requirements listed, they will be eligible only for a lesser rebate as described in Chapter III.

In all cases, systems must be installed in conformance with the manufacturer's specifications and with all applicable electrical and building codes and standards<sup>5</sup>.

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<sup>&</sup>lt;sup>5</sup> For information on restrictions placed on owner-builders or self-installers, contact the Contractor's State License Board at 1-800-321-CSLB to obtain a current edition of the Contractor's License Law and Handbook.

### G. Five-year Warranty Requirements

All systems must have a minimum five-year warranty to protect the purchaser against system or component breakdown.—The warranty must cover and provide for no-cost repair or replacement of the system or system components including any associated labor for five years. The warranty must also cover the major components of the generating system against breakdown or degradation in electrical output of more than ten percent from their originally rated electrical output during the five year period. Major components are defined as photovoltaic modules, wind turbine generators, solar thermal engines and dishes, fuel cell reformers and cells, and inverters.—The warranty may be provided in combination by the manufacturer and installer.

Self-installed systems must have a minimum five-year warranty to protect the purchaser against breakdown or electrical output degradation of major system components.—<u>In this case, t</u>The warranty need not cover the labor costs associated with removing or replacing major components, because any since the repairs would be done by the self-installer or at the self-installer's expense.

### **H. System Performance Meter**

All systems must be installed with a performance meter<sup>6</sup> so that the customer can determine the amount of energy produced by the system.—The meter must be listed with the Energy Commission and measure the total energy produced by the system in kilowatt hours (or watt hours) and have a manufacturer's uncertainty specification withinef plus or minus five percent.—The meter must retain the kilowatt-hour production data in the event of a power outage and must provide a display of system output that the customer can easily view and understand.—A system need not include a separate meter if the system is installed with an inverter that contains internal metering and display equipment that meets the meter requirements above.—The meter requirement also applies to system additions if the existing system does not include a performance meter.—A list of eligible performance meters and inverters that have built-in meters is available at [http://www.consumerenergycenter.com/erprebate].

### I. Equipment Sellers Retailers

To participate in the ERP, <u>companies who sell system equipment</u>retailers must provide the Energy Commission with the following information <u>on form CEC 1038 R4</u>:

- 1) Business name, address, phone, fax, and e-mail address
- 2) Owner or principal contact
- 3) Business license number
- 4) Contractor license number (if applicable)
- 5) Proof of good standing on the records of the California Secretary of State, as required for corporate and limited liability entities

<sup>&</sup>lt;sup>6</sup> A performance meter is a device which measures and displays the energy output of the renewable energy system.

### 6) Reseller's license number

This information <u>must may</u> be submitted <u>before at any time that a company can retailer</u> wishes to become eligible to participate in the ERP.—To remain eligible, <u>a company must resubmit this the information must be resubmitted annually</u>, by March 31, using form CEC 1038 R4.—<u>This annual submittal is required even it the information identified in the company's prior R4 submittal has not changed. In addition, a company must submit an updated R4 form any time its reported information has changed. The updated R4 form must be submitted to the Energy Commission within 30 days of the change of any reported information.</u>

The above is-information must be on file with the Energy Commission before the applicant can receive any reservation confirmation or rebate payment.—The Energy Commission will compile the information and make it available to consumers to assist them in making purchase decisions and effectuating remedial action.

Information about registered equipment sellers will be posted on the Energy Commission's web site at:

[http://www.consumerenergycenter.org/erprebate/database/index.html]

Send the cCompleted CEC 1038 R4 form may be submitted by telefax to (916) 653-2543 or by mail to:

ERP Seller Registration California Energy Commission 1516 - 9th Street, MS-45 Sacramento, CA 95814-5512

(Reservation requests <u>and payment requests</u> must be mailed, but seller registration and responses to Energy Commission correction requests may be faxed).

# J. Audits and Inspections

The Energy Commission will conduct audits of the applications it receives to verify that the information provided in the applications is true and correct.—The Energy Commission may also conduct field inspections to verify systems are operating properly and installed as specified in the reservation request and payment claim applications.

In the event that a contractor, equipment seller, or purchaser provides information in a reservation application or payment request that appears to be questionable, the Energy Commission willmay take the following steps to clarify the questionable information:

 Stop review of the application containing the questionable information to investigate further. 2. Require additional documentation from the contractor, equipment seller, and/or purchaser to verify the accuracy of the the questionable information.

If the questionable information appears is determined to be false or misrepresented, the Energy Commission will take one or more of the following corrective measures:

- 1. Reject the reservation application, or if a payment application, reject the payment request and cancel the reservation.
- 2. Notify the proper authorities, including the Contractors State Licensing Board, so appropriate enforcement action may be taken.
- 3. Suspend review of all other applications submitted by or associated with the contractor, equipment seller, or purchaser to review whether false or misrepresented information was provided in those applications.
- 4. Require additional documentation from the contractor, equipment seller, or purchaser to verify if false or misrepresented information was provided with these other applications.
- 5. Notify purchasers identified in these other applications that additional information will be required to keep approved applications active or to process payment requests, and that the processing of any such applications will likely be delayed.
- 6. Require supporting documentation for all new applications and payment requests submitted by or associated with the contractor, equipment seller., or purchaser for a period of one year from the date the questionable information was confirmed to be false or misrepresented.
- 7. Require that all payment requests submitted by or associated with contractor, equipment seller, or purchaser be supported by additional verification of payments made by the purchaser, including bank statements, cancelled checks, credit card statements or other similar documentation.
- 8. Post information on the Energy Commission web site which informs consumers that
  1) additional information is required when applying for reservations or payments
  using the contractor or equipment seller, and 2) that any applications submitted by or
  associated with the contractor or equipment seller will be subject to a more thorough
  review which will delay the processing of these applications.

# III.- Incentives Offered Through This Program

This program offers two types of incentives. The first type of incentive is a rebate which is based on the generating capacity of a system and is paid in a lump sum. The second type is a performance-based incentive which is based on the amount of electricity generated by a system and is paid over a three year period. The latter is offered through a pilot program and described further in Chapter VIII.

#### A. Rebates Offered

The rebates offered through this program vary by system size, technology, and type of installation.—\_The incentive must be used to reduce the purchase or lease cost of the eligible system, or the cost of electricity produced by the eligible system for the on site customer.

The rebates offered for professionally installed new systems are identified below in Table 1.—Lower rebates, 15 percent less, are also available for owner or self installed systems.—Additionally, special rebates are available for systems installed for affordable housing, and public and charter schools.—Because these special rebates target specific groups or classes of customers, they are discussed separately in Chapter VIII of this guidebook.—Under no circumstance will the incentive from the ERP exceed the net purchase price of the system to the final customer (before ERP incentives).

Table 1 lists the rebate levels available as of January 1, 20054 by size category and technology type.—These rebate levels willare expected to decline over time as described in section E of this chapter.

Table 1:-\_Rebates Available for Emerging Renewable Systems

Technology Type	Size Category	Rebate Offered*
	<30 kW	\$ <u>2.8</u> 3.20 per Watt
Photovoltaic <u>**</u> <del>,</del>	=>30 kW	Future Performance Incentive
Solar Thermal Electric Fuel Cells using a renewable fuel***	<30 kW	\$3. <mark>2</mark> 60 per Watt
Solar Thermal Electric Fuel Cells using a renewable fuel	=>30 kW	Future Performance Incentive
Wind	First 7.5 kW	\$ <u>1.70</u> 2.10 per Watt
	Increments above 7.5 kW up to 30 kW	\$ <u>0.70</u> 1.10 per Watt

	=> 30 up to 50 kW	Future Performance Incentive			
*Rebates for owner installed systems are discounted by 15 percent.					
** Applicants may choose to receive incentive payments based on actual system performance instead of rebates.					
*** Fuel cells that operate on non-renewable fuels and are used in combined heat and power applications may be eligible for					

rebates at a later date when funds from other sources, such as the Self Generation Incentive Program, are no longer available.

### **B.** Other Incentives May Affect Your Rebate Amount

Incentives received from sources other than the ERP that lower the cost of a generating system may affect the rebate amount you receive from the Energy Commission.—Fifty percent (50%) of incentives received or expected must be subtracted from the rebate amounts listed in Table1 if the incentives are from other utility incentive programs, a State of California sponsored incentive program, or a federal government sponsored incentive program, other than tax credits.—No applicant may be issued a reservation or receive payment from the ERP if the same system is participating, or has participated, in the California Public Utilities Commission approved Self Generation Incentive Program or the Rebuild San Diego Program or any other rebate program using ratepayer funds.

See Chapter VIII of this guidebook for information regarding rebate levels for qualifying affordable housing and public and charter schools.

## C. <u>Pilot Performance-Based Incentive Programs</u> for Photovoltaic Systems

Instead of applying for a rebate based on a system's generating capacity, applicants installing photovoltaic systems may apply for production incentives based on a system's energy production (kWh) over a three year period. Production incentives are offered under a pilot performance-based incentive program which is described in Chapter VIII. This portion of the program will be developed at a later date.

#### D. Available Funds

As discussed in the *Overall Program Guidebook*, approximately \$118,125,000 in funding was allocated to the ERP for 2002 through 2006.—Additional allocations are governed by the Overall Program Guidebook.—Any funding added to the ERP will be allocated to systems less than 30 kW unless otherwise specified.—A total of ten million dollars is allocated to the pilot performance-based incentive program for photovoltaic systems.

#### E. Adjustment of Rebate Levels

The rebate levels for all technology types will <u>continue to</u> be reduced by 20 cents per watt every six months <u>beginning July 1, 2003</u> (and every January 1<sup>st</sup> and July 1<sup>st</sup> thereafter). The performance based incentive level will remain constant for duration of

the pilot program. In addition, the rebate level for photovoltaic systems was reduced an additional 40 cents per watt beginning January 1, 2004 to \$3.20 per watt.

## IV. - Reservation Process

Through this program, funding is reserved for applicants who have committed to purchase and install an eligible system at a given site.—A funding reservation provides the purchaser assurance that the reserved funds will be available when the payment claim is made.—The standard reservation period is for six months.—The reservation period for systems installed on public and charter schools and new construction is 18 months.—Multiple systemsProgram funding is available for only one system—at each site. The are treated as a single system for purposes of determining the appropriate rebate. Applicants with an 18 month reservation period can not reapply for a new reservation during the term of their original reservation period.—These applicants may reapply for a new reservation only after the term of their original reservation period expires, and may qualify for rebate levels available at that time.

Funding reservations are made only for complete applications on a first come, first served basis.—<u>In addition</u>, a reservation will not be issued for a system with installed costs that are significantly higher than the average cost of similar systems unless the applicant provides documentation to justify the system's higher costs. Applications that do not comply with contracting regulations, such as excessive down payments, or are missing application forms or have other major omissions or discrepancies, will <u>not be approved or processed</u> be returned to the applicant without processing. The applicants that submitted these applications will be notified and directed to submit new applications if interested in applying for program funding. The applications that are rejected will normally be kept by the Energy Commission for approximately three months after being rejected.<sup>8</sup>

In the case of omissions that do not affect eligibility or the amount reserved, the purchaser may be asked to provide In cases with minor omissions or discrepancies, additional information may be requested to clarify the application. If additional information is requested, the application. Such applications will not be processed unless til the requested information is provided. If this information is not provided within the time period specified in the request (usually 7 days). If the requested information is

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<sup>&</sup>lt;sup>7</sup> The site is defined as a single parcel of real property plus any improvements on that site except in cases where there are 5 or more high density dwelling units such as condominiums or apartments on a single parcel.—If 5 or more units are at one site, then utility meter numbers will be used to determine the number of reservations that may be granted for systems installed at the site. In cases where multiple systems are installed, all generating capacity on the site is treated as a single system. For example, a five kW PV system and a 3 kW PV system on the same property is simply evaluated as a single 8 kW PV system for purposes of reserving funds and calculating the rebate payment.

<sup>&</sup>lt;sup>8</sup> Applications that are rejected will normally be destroyed approximately after 3 months after the date of rejection to protect sensitive consumer information.

<sup>&</sup>lt;sup>9</sup> Examples of omissions that do not affect eligibility, include situations where the required information is provided in an application, but the information is not legible, or where pertinent information is missing from an application's supporting documentation, as in the case of a partial utility bill that identifies a general property location, but does not clearly specify an actual street address.

not provided within the time period specified in the request, the applicant will be notified to reapply as specified above. application will be disapproved and will be returned to the applicant.

No payment will be made unless the installed system meets all applicable ERP requirements even if funds are reserved.

A public entity submitting an application to the ERP must also certify that it is in compliance with the provisions of Civil Code section 714.— This law makes void and unenforceable any covenant, restriction or condition in any deed, contract or other instrument affecting the transfer, sale of, or interest in real property that unreasonably restricts the installation of solar energy systems, as defined in the law.— This law also requires that the appropriate public entities process and approve applications for installation of solar energy systems in a manner consistent with the entities approval process for architectural modifications, and that the entities not willfully avoid or delay the application review and approval process.

Only one reservation and one <u>rebate</u> payment will be allowed for each site with a standard six month reservation period. <sup>10</sup>— The application information and funding reserved can be modified (except for the <u>reservation</u> expiration date) within that six month reservation period with supporting documentation and if sufficient funds are available.

The reservation period or expiration date of an approved reservation submitted after 1/19/05 may not be extended under any circumstances.

### A. Reserving a Rebate

This section describes the paperwork that is <u>normally</u> required to reserve funding <u>for a standard rebate</u>.—Please be sure to submit a complete reservation application and provide all the supporting documentation <u>as</u> described below to receive your reservation approval.—The <u>application will not be reviewed if incomplete and will be rejected. The</u> reservation process will be delayed if <u>incomplete</u>, incorrect or non-complying information is received.—To obtain a rebate reservation, <u>all applicantsyou</u> must submit <u>at minimum</u> the following items:

- A completed Reservation Request Form (CEC-1038 R1)
- Copy of agreement(s) to purchase and install a system
- Evidence that site electricity load is supplied by an eligible utility
- Payee data record (Form STD-204) for the rebate recipient

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<sup>&</sup>lt;sup>10</sup> An applicant with a standard reservation may only cancel his or her reservation and reapply for a new reservation within the original six month reservation period if the rebate level has dropped at least one level from the rebate granted in the original reservation.—A note or letter explaining the request must be submitted with a new reservation request form and signed by the purchaser and seller.

Please see Chapter V for the documentation requirements to claim a rebate payment.

Chapter VIII covers the special funding requirements for the rebates <u>offered</u> for affordable housing and public and charter schools, <u>and for performance-based incentives offered under the Pilot Performance-Based Incentive Program</u>.—Appendix 5 covers new housing developments, new construction, systems installed on property owned by retailers and/or contractors, adding to existing systems, and leased systems.

### 1. Reservation Request Form

The Reservation Request Form (CEC 1038 R1) is now a two page form that identifies most of the information needed about the proposed system and specifies what information must be submitted with the application.

The purchaser of the system must always sign the Reservation Request Form (CEC 1038 R1).—If the <u>equipment</u> seller <u>of the system</u> is designated as the payee, the seller (retailer or wholesaler) must also sign.—The purchaser must use a registered equipment seller.—A listing of registered <u>equipment</u> sellers may be found at:

[http://www.consumerenergycenter.org/erprebate/database/index.html]

Eligible equipment sellers need to have filed business information (the CEC 1038 R4 form) with the Energy Commission to be eligible to participate in the program. Reservation requests that identify ineligible retailers will not be approved unlesstil the required business information is filed with the Energy Commission. until the required business information is filed with the Energy Commission.

Detailed instructions are <u>included withon the back of</u> the Reservation Request Form (CEC 1038 R1). These instructions also provide information on how the rebate is calculated when the rated system output exceeds the inverter(s) capacity.—Appendix 1 includes a blank copy of the Reservation Request Form and accompanying instructions. To obtain additional blank forms, call the Energy Commission Call Center at (800) 555-7794 or download the forms online from the following Energy Commission website:

[www.consumerenergycenter.org/erprebate].

### 2. Evidence of Agreement to Purchase and Install a System

Evidence of an agreement(s) to purchase and install a system <a href="must becan">must becan</a> be demonstrated. How this is demonstrated in one of three ways. The method used depends upon whether: 1) the system is 1) owner-installed; or 2) contractor-installed where the and if the equipment seller is a separate entity; or 3) contractor-installed where the same contractor who also performs the installation.

In each of these three cases, il-nformation concerning these contractual agreements must be provided in the Reservation Request Form (CEC 1038 R1) and must be consistent among agreements and with the Form or the application willmay be rejected. Regardless of the situation, agreements for the purchase of a system or system equipment must be in writing and clearly include, at a minimum, the following information: applicants submitting an equipment purchase agreement to demonstrate a commitment to purchase, must clearly include the following information in the agreement:

- 1.— the quantity, make and model number (as shown on the Energy Commission lists of eligible equipment) for the photovoltaic modules, wind turbines or other generating equipment and for the inverters and system performance meters
- 2.—the total purchase price of the system before applying the rebate
- 3. the expected rebate amount from the Energy Commission
- 34.—Language indicating the purchaser's commitment to buy the system
- <u>45.</u>\_<u>signed\_printed\_names and signatures\_of the purchaser\_buyer\_and equipment seller's authorized representative</u>

Installation contracts must be submitted for contractor installed systems and comply with the Contractor's State License Board (CSLB) requirements guidelines.—In addition. These contracts must contain the following information:

- 1.— the name, address and contractor's license number of the company performing the system installation, address and license number of the contractor
- 2.—the site address for the system installation
- 3.—a description of the work to be performed
- 4.—the total agreed to price for the labor to install the system
- 5.—payment terms (payment dates and dollar amounts)
- 6.—<u>the printed names and signatures signed names</u> of the purchaser and <u>the company's authorized representative contractor</u>

Please refer to the CSLB website for more information on CSLB guidelines at: [http://www.cslb.ca.gov]

Applications with installation contracts that appear to be clearly deficient may be forwarded by the Energy Commission to the CSLB for verification.

Entities without a valid A, B, C-10 or C-46 contractor's license may not offer installation services or charge for installation in any agreement.

The above requirements are sufficient evidence of an agreement to purchase ander install a system for the case where a contractor sells and installs the system. For the other two cases, the following case-specific requirements must be satisfied.

## A. Owner or Self-Installed System

In situations where the system is installed by the system owner, the applicant must provide the following information:

- An equipment purchase agreement as described above, OR
- In cases where there is not a signed agreement to purchase equipment the purchaser may provide invoices or receipts showing that a down payment has been paid of at least 10 percent of the system's equipment purchase price (generating equipment and inverters) has been paid to the seller(s). 11, if system is purchased as a package, or of the major system equipment, if equipment is purchased separately
- B. Professionally Installed System with Separate Seller and Installer

In situations where the <u>purchaser customer</u> is purchasing the system from <u>one</u> <u>companya seller</u> and hiring a separate <u>companyentity</u> (licensed contractor) for installation, the <u>purchaser must obtain proof of his or her commitment to purchase</u> <u>and install the system in separate documents as follows:</u> <u>following information must be provided:</u>

- an equipment purchase agreement as described above, OR
- <u>In cases where there is not a signed purchase agreement the purchaser may provide</u> invoices or receipts showing that a down payment of at least 10 percent of the system's <u>equipment</u> purchase price <u>(generating equipment and inverters)</u>, if the system is purchased as a package, or of the major system equipment, if <u>equipment is purchased separately</u>, has been paid to the seller(s), AND
- an installation contract from the second company as described above

C.<u>Professionally Installed Professionally Installed System Purchased from and Installed by the Same Company</u>Entity

In situations where the <u>purchaser</u> customer is purchasing the system from a licensed contractor who is performing both the sale and installation of the system, the <u>single</u> <u>written agreement must contain the information listed above in order to demonstrate the purchaser's commitment to purchase and install the system.</u> following information must be provided:

•a single contract containing the purchase agreement and installation contract information described above. OR

<sup>&</sup>lt;sup>11</sup> An example of this situation is where the purchaser buys new equipment via the internet or mail order.

- invoices or receipts showing that a down payment of at least 10 percent of the system's purchase price, if the system is purchased as a package, or of the major system equipment, if equipment is purchased separately, has been paid to the seller, AND
- •an installation contract as described above
- Entities without a valid A, B, C-10 or C-46 contractor's license may not offer installation services or charge for installation in any agreement.

Information in <u>the purchase and installation</u> agreement(s) and labor contracts must <u>match</u> be consistent with the information <u>provided in on the purchaser's Reservation Request Form application form (CEC 1038 R1).</u>

# 4.3. Evidence that Site Electricity Load is Supplied by Eligible Utility

If the installation location currently has electrical service, the <u>applicantpurchaser</u> must submit a recent copy of the utility bill showing the service address of the installation site, the name of the <u>applicantpurchaser</u>, electric energy usage, and the utility name. Submitting all pages of a utility bill will usually ensure that this information is provided. The utility bill should be no older than six months from the date of application.—If the customer name on the utility bill is not the same as the <u>applicant'spurchaser's</u>, provide an explanation.—This or other documentation must show that the annual on-site electrical load justifies the proposed system size (see Appendix 4) before payment will be made.

<u>Exception only for new construction</u> - If the installation location is a new facility without electrical service, the applicant must identify the electric utility that will provide electric service to the site. Documentation to show that the annual on-site electrical load justifies the system size will need to be demonstrated before payment will be made. (See Appendix 4 for program requirements for on-site electrical loads.)

If the installation location is a new facility without electrical service, the purchaser or seller must submit a copy of the building permit for the new home or improvement and indicate the future electric service provider on the CEC 1038 R1 reservation form. If the system is being installed on new construction, or the site does not currently have electric service, the expected energy usage can be demonstrated with a statement signed by a qualified architect, engineer, or electrical contractor (C-10 licensed) indicating that the requisite electricity consumption will occur at the site.

# 4. Payee Data Record (Form STD-204)

This form must be completed by the person or business entity identified as the rebate payee on the Reservation Request Form (CEC 1038 R1). The payee data record is still required even if the rebate payee chooses to assign the payment to another party.—If the designated payee has submitted a complete STD-204 form with a prior application and has already received a rebate payment within the last two years from the Energy Commission, the a new STD-204 is not needed again.—In these cases the Energy

Commission will use data from the prior previously submitted STD-204 form.—If the data provided in a previously submitted STD-204 has changed, the payee must notify the Energy Commission and submit a new STD-204 form. Beginning April 1, 2005, only equipment sellers who have a STD-204 on file will be listed as specified in Chapter II. The STD-204 form may be found in Appendix 1 of this guidebook or at: [http://www.documents.dgs.ca.gov/osp/pdf/std204.pdf]

### 5. Submitting Your Complete Reservation Application

The complete reservation request application must be delivered by mail to:

ERP, Reservation Request California Energy Commission 1516 - 9th Street, MS-45 Sacramento, CA 95814-5512

Faxes are not longer accepted.—If the application is submitted close to a scheduled decline in the rebate level, it must be postmarked no later than the last day before the decline to be considered for the higher rebate level.—In addition, no funding will be reserved if an application is incomplete or illegible, has conflicting information or does not otherwise comply with the program requirements.—The application will be approved for a reservation based on the date it is deemed complete and not the date it was first submitted.—The rebate level and other program criteria applicable on the completion date the application is deemed complete will apply.

As described earlier in this chapter, if the reservation request application is missing application forms or has other omissions or discrepancies, incomplete and contains major discrepancies or omissions, it will the purchaser will be notified that the application will not be approved. be returned to the applicant unprocessed. If the application contains minor omissions or discrepancies, the Energy Commission may request additional information. Such applications will not be processed until the additional information is provided. If the information is not provided within the time period specified in the request, the application will be disapproved and returned to the applicant. These Aapplicants who have had their applications returned or disapproved may resubmit a new applications.—The resubmitted Any new application will be subject to the program requirements, funding availability and rebate level in place at the time the application becomes complete for approval. it is resubmitted. Applicants are encouraged to keep copies of all applications and supporting documentation submitted to the Energy Commission.

The Energy Commission posts information on the internet so that applicants can check the status of their applications. To check the status of your application(s) on-line, go to: [http://www.consumerenergycenter.org/erprebate/index.html]

For more information on additional requirements for the affordable housing or public or charter school rebates, <u>or the Pilot Performance-Based Incentive Program</u> see Chapter VIII.

The amount of the rebate available changes during the term of the program. Therefore, the Energy Commission recommends that applicants wait to order or install system equipment until until after they receive a confirmation indicating the amount of funding that has been reserved for their rebate.

# V. - Payment Process

### A. Claiming a Rebate Payment

To receive payment of your rebate, you must comply with all program requirements and make a complete claim for payment before the expiration of your reservation.

### 1. Payment Claim Form

The Energy Commission will send a copy of the Payment Claim Form (CEC 1038 R2) to the purchaser and designated payee to confirm the amount of funding reserved on the purchaser's behalf.—In most cases, the parties entering into the purchase and installation agreement(s) and installation contract (purchaser and equipment seller and/or installer) must read, sign, and date the Payment Claim Form.—If the purchaser alone applied for and is to receive the rebate, only the purchaser need sign the Payment Claim Form. This form must be returned to the Energy Commission by mail, mailed, as original signatures are required to process a for payment.—Please do not use black ink to sign the form. If the signatures do not appear to be wet signatures new forms will need to be signed and submitted. Stamped signatures are not acceptable.

Any changes to the information provided on the previously submitted Reservation Request Form (CEC 1038 R1) must be noted in the space provided on the Payment Claim Form (CEC 1038 R2).—Changes from the previously submitted Reservation Request Form, original application, such as changes in equipment, installer or equipment seller must be identified on the Payment Claim Form (CEC 1038 R2).—If additional space is required to note such changes, additional pages may be attached to the Payment Claim Fform.—Changes in equipment from that identified in the previously submitted Reservation Request Form original application or other changes may affect the eligibility and amount of the rebate.

# 2. Documentation Confirming Final Payment and System Installation

Applicants must submit final <a href="mailto:system\_project-cost">system\_project-cost</a> documentation clearly identifying <a href="mailto:the-system">the-final amount paid to purchase and install the system</a>. <a href="white-white-white-white-cost">what work was done and how much was paid. The cCost documentation must provide show proof of the final amount paid by the applicant to the equipment seller and/or installer and provide sufficient information to clearly identify the equipment <a href="mailto:purchased">purchased</a> and <a href="mailto:the-labor paid">the labor paid</a>. <a href="mailto:The-final amount paid to the equipment seller and/or installer must match the cost information identified in the Payment Claim Form</a>. <a href="mailto:labor purchased">labor purchased</a>. <a href="mailto:To meet this requirement,">To meet this requirement</a>, the applicant must submit final invoices or a copy of the final <a href="mailto:agreement-contract">agreement-contract</a>. <a href="mailto:">—<a href="mailto:The-ead-invoices">The-ead-invoices</a> or a copy of the final <a href="mailto:agreement-contract">agreement-contract</a>. <a href="mailto:">—<a href="mailto:The-ead-invoices">The-ead-invoices</a> or a copy of the final <a href="mailto:agreement-contract">agreement-contract</a>. <a href="mailto:">—<a href="mailto:The-ead-invoices">The-ead-invoices</a> or a copy of the final <a href="mailto:agreement-contract">agreement-contract</a>. <a href="mailto:">—<a href="mailto:The-ead-invoices">The-ead-invoices</a> or a copy of the final <a href="mailto:agreement-contract">agreement-contract</a>. <a href="mailto:-mailto:agreement-contract">—<a href="mailto:The-ead-invoices">The-ead-invoices</a> or agreements</a> <a href="mailto:-mailto:

to which the Energy Commission's rebate lowered the cost of the system to the <u>applicant</u>purchaser.

The Energy Commission will conduct spot checks to verify that payments were made as identified in the final invoices or agreements provided by equipment sellers and/or installers. As part of these spot checks, the Energy Commission will require applicants to submit reserves the right to require that copies of cancelled checks, credit card statements, or equivalent documentation be submitted to substantiate payments made to the equipment seller and/or installer. of the claimed eligible project cost (When submitting this documentation, applicants are encouraged to redact their personal account numbers or other sensitive information identified in the documentation.). Applicants must explain the difference if the final amount price paid by the applicant is different from the amount of the purchase or installation that price shown in on any agreement or invoice contract or invoice or in the previously submitted with a Reservation Request Form (CEC 1038 R1).

## 3. Final Building Permit and Final Inspection Sign Off

Submit a copy of the initial building permit and the final inspection signoff for the upon completion of system installation.— The name and address on the final building permit and final inspection signoff must match the name and address that shown on the Payment Claim Form (CEC 1038 R2) as well as the previously submitted Reservation Request Form.

# 4. Five-year Warranty

A standard full five-year warranty form (CEC 1038 R3) must be completed and signed by the appropriate party(ies) and given to the purchaser.—\_Submit a copy of this form with <a href="mailto:the-Payment Claim Form to claim the maximum incentive">the Payment Claim Form to claim the maximum incentive</a>. If the applicant is unable to obtain warranty coverage for labor, the application will be treated as an owner installed system and be given a 15 percent lower rebate. Your payment request.

<u>Exception for For owner installed systems</u>, <u>S</u>submit copies of the manufacturer's <u>5</u> <u>five</u>-year warranties for the inverters and generating equipment.

### 5. Evidence that Site Electricity Load is Supplied by Eligible Utility

If the system was installed on new construction and an electric utility bill was not available at the time of submitting the Reservation Request Form, the applicant must provide a copy of a recent electric utility bill or a letter from the electric utility to show that there is now electrical service at the site, and that this service was established prior to the expiration date of the reservation. In addition, if an electric utility bill is not provided, the applicant must provide a separate letter from a qualified architect, engineer, or electrical contractor (C-10 licensed) that identifies the expected electricity consumption at the site and verifies that the consumption will satisfy program requirements for system size.

### <u>5.6.</u> System Interconnection with Utility Grid

The applicant must demonstrate that the system is interconnected to the utility distribution grid and that the utility has approved this interconnection for the system's operation at the site of installation. The applicant must demonstrate this by submitting a letter of authorization to interconnect the system from the utility. The rebate payment may be made\_-prior to obtaining the utility letter of authorization if the applicant provides submits written authorization to the Energy Commission authorizing which gives permission to the applicant's utility to exchange applicant information with the Energy Commission to verify compliance with the interconnection requirements. Forms for this purpose may be obtained directly from the applicant's utility. The authorization may be provided by submitting a completed California Public Utilities Commission form "Authorization to Receive Customer Information or Act on a Customer's Behalf." A customer's authorization must remain in effect for the lesser of three years or the term of the ERP.

<u>Exception only for new construction -</u> If the site of installation was a new facility without electrical service when the reservation request was submitted, a copy of the applicant's utility statement or other proof from the utility must be submitted before payment may be made. Other proof may include written confirmation from the utility that a meter has been set at the site and verifying that the site had electrical service prior to the reservation expiration date.

In addition, applicants must authorize the Energy Commission to exchange applicant information with the applicant's utility if necessary to verify compliance with these interconnection and program requirements. By applying for program funding, a reservation, applicants authorize the Energy Commission during the term of the ERP to exchange applicant information with the applicant's utility for these purposes. in order to verify compliance with the interconnection and program requirements.

## 7. Payee Data Record (Form STD-204)

If the data provided in a previously submitted STD-204 has changed, the payee must notify the Energy Commission and submit a new STD-204. If the payee originally identified has changed, an STD-204 form must be submitted (if the new payee was not previously paid by the Energy Commission). The STD-204 form may be found in Appendix 1 of this guidebook or at: [www.documents.dgs.ca.gov/osp/pdf/std204.pdf]

#### B. Submitting a Payment Claim

Once a system is installed,  $grid_{\underline{z}}$  connected,  $\frac{12}{5}$ , and operating satisfactorily, the following documents must be submitted to claim a rebate payment:

- Rebate Payment Claim Form (CEC 1038 R2)
- Documentation confirming <u>what equipment and labor was purchased including</u> <u>the final amount(s) paid to purchase and install the final payment and system</u> <u>installation</u>
- Final Initial building permit and final signoff
- Five-year warranty for the system (CEC 1038 R3 form)
- If not already provided, aA copy of a recent the utility bill if the installation location was a new facility without electrical service when the reservation request was submitted (or in the case of a new home or facility, other proof of utility service and expected electricity consumption at the site from the electric utility, such as evidence that a meter has been set at the site, that verifies the site had electrical service prior to the reservation expiration date).
- A copy of utility letter authorizing system interconnection to utility grid (or if letter not available at time of Payment Claim, written authorization allowing the applicant's utility to share applicant information with the Energy Commission to verify compliance with the interconnection requirements).
- Payee data record (STD-204), if not provided with the initial application or the payee was not previously paid by the Energy Commission within the last two years

Mail the complete Payment Claim Form (CEC 1038 R2) and supporting documentation to the Energy Commission at the address shown below on or before the expiration date specified on the Payment Claim Form.—\_The Payment Claim Form cannot be submitted by telefax\_because original signatures are required on the Payment Claim Form to process rebate payments.—\_The request for payment must be received or postmarked on or before the reservation expiration date.—\_Be sure to keep a copy of the Payment Claim Form together with the purchase and installation agreements, contracts, receipts, evidence of payment, building permit, and final signoff, utility bill, etc. for your records. If the payment is being assigned to a third party, an original signature of the payee is also required on the Payment Assignment Form (CEC 1038 R5) form.

Payment <u>Celaim Forms</u> should not be submitted unless a complete application <u>can be is</u> provided and all eligibility requirements <u>can be are met.— The application must</u> document that utility service existed at the site and that the system <u>'s installation</u> was signed off by the building department prior to the expiration date <u>of the applicant's reservation</u>, otherwise the <u>system project</u> clearly does not meet the conditions of the reservation and the applicant will be required to reapply under the program rules and funding availability in effect at the time of reapplication.

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<sup>&</sup>lt;sup>12</sup> Systems must be permanently interconnected to the electrical distribution grid of the utility serving the customer's electrical load unless the system uses a Commission approved device on the customer side of the meter instead of an inverter.

If the payment request application is incomplete, the Energy Commission may request the provision of all missing or unclear information from the appropriate party (purchaser, equipment seller, or installer) to process the request.—In that event, the Energy Commission will allow the submitting party up to 60 days to respond with all the required information to approve payment.

The request for payment will be denied if all the requested information is not received within the time period specified by the Energy Commission.—A claim that is not received by the expiration date of the applicant's reservation or is otherwise not ineligible will be returned to the applicant purchaser along withsent a written notice stating the reasons that the claim was rejected. If the claim is made after the expiration date of the reservation or is otherwise ineligible, the applicant purchaser may will have to reapply for a rebate reservation, but and will be subject to the eligibility requirements, incentives, and funding available at that time of reapplication.

All required forms and supporting documentation required to claim payment shall be mailed to:

ERP, Payment Claim
California Energy Commission
1516 9th Street, MS-45.
\_\_\_\_Sacramento, CA 95814- 5512

The Energy Commission intends to make incentive payments within 6 to 8 weeks of receipt of a complete rebate payment claim application.—Payment will be made to the seller or purchaser, as designated on the Reservation Request Form (CEC-1038 R1) unless the payee has assigned the payment to a third party, and will be mailed to the address provided by the recipient on the Payee Data Record (Form STD-204), previously submitted to the Energy Commission.

### C. Claiming a Rebate Payment Without a Prior Reservation

If a rebate payment is claimed for a system not previously approved for a rebate reservation, the Payment Claim Form (CEC 1038 R2) and required documentation must also be accompanied by a completed and signed Reservation Request Form (CEC 1038 R1).—The submittal should meet all requirements needed for approval and payment as described herein.—Applicants without a prior reservation should be aware that program eligibility requirements and rebate levels may have changed since installation and may require the applicant to make significant and costly changes to the system in order for it to qualify for an incentive.

### D. Assignment of Rebate Payment

The designated payee of the rebate payment may assign his or her right to receive the payment to a third party by completing the Reservation Payment Assignment Form

(CEC-1038 R5) and submitting it with either their reservation request or their Payment Claim Form (CEC 1038 R2).— The Reservation Payment Assignment Form may not be submitted by telefax as original signatures are required to process the assignment. Payees that assign their rebate payment to a third party will still be reported as the recipients of said payments for tax purposes.

# VI. – Modifications or Changes to Reservations

### A. Can My Installed System Be Different Than My Reservation?

The Energy Commission expects a system to be installed as described in the Reservation Request Form (CEC 1038 R1), but recognizes that minor changes may result during installation and that time extensions or other substantive changes may be necessary in extraordinary circumstances.—<u>Time extensions will not be available for applications submitted on or after January 195, 2005, the adoption date of these quidelines. subject to the conditions herein.</u> See Appendix 5 for more information on major changes.—<u>I</u>Minor changes do not require prior approval, but must be documented on the Payment Claim Form (CEC 1038 R2) and may change the rebate amount. Minor changes include decreases in the system size (while staying within the Energy Commission size categories), changes in <u>the equipment seller qualifying retailers</u> and/or installers, <u>and or</u> changes from one make or model of a certified <u>system</u> component to another.—<u>Any changed rebate amount that occurs is subject to availability of funding.</u>

### 1. How Do Changes Affect the Rebate Amount

Modifications to an approved reservation may be made prior to a payment claim or when the payment claim request is submitted. When a modification includes parameters that affect incentive amounts, a new ilncentive amount will be calculated and the calculations will be based on the program parameters at the time a modification request with supporting documentation is deemed complete. Parameters affecting the incentive include the installation type, system size, and technology. If any change results in the installed system differing in its rated electrical output or other parameters from the system originally specified in the Reservation Request Form (CEC 1038 R1), a new rebate payment amount will be calculated. If changes occur such that the system installation qualifies for a higher incentive if treated as a new application, this higher incentive will be reserved or paid without requiring the applicant to reapply.

If any change occurs that would have decreased the original rebate calculation, the amount reserved will also be decreased by the same factor. -For example, I if the installed system is smaller in output than originally specified in the Reservation Request Form, the new rebate amount will be determined by prorating the amount reserved downward (using using results in the same rebate level that was used to calculate the original rebate amount). For example, Similarly, if the installation type changes from a professional- install to an owner- install the incentive is reduced by 15 percent (owner installed systems qualify for 15 percent lower incentive). If a system, which was granted a rebate reservation at the self-install rebate level, is reduced in size, the rebate reservation was first issued. This is true even if the smaller system size was installed professionally.

Any change that may result in a higher incentive will be recalculated as if the application is a new application at that time and it will be reserved or paid without requiring a new application to be submitted. If the installed system is larger than that originally specified in the reservation request, the Energy Commission will recalculate the rebate based on the current program parameters for the entire proposed project at the time a modification request (with supporting documentation) is filed. For example, ilf a system change involves an is increased in size (without other changes), but the resulting incentive recalculation is lower than originally reserved, the originally reserved amount will be maintainedreserved or paid. - The following table shows how the rebate amount will change if modifications are made after the rebate level has decreased.

<u>Description of application information and resulting</u> rebate calculations after changes are made	Rebate Calculation	<u>Total</u> Rebate
Base Case – 2000 Watt PV system installed by owner with a \$3.00/Watt rebate level	2000 x \$3.00 x 0.85 =	<u>\$5,100</u>
Change to contractor install during \$2.80 rebate level with no other changes to base case	2000 x \$2.80 x 1.00 =	<u>\$5,600</u>
Add 300 Watts during \$2.80 rebate level with no other changes from base case	2300 x \$2.80 x 0.85 =	<u>\$5,474</u>
Add 300 Watts and change to contractor install at \$2.80 rebate level	2300 x \$2.80 x 1.00 =	<u>\$6,440</u>
Reduce size by 100 Watts and change to contractor install during \$2.80 rebate level	1900 x \$2.80 x 1.00 =	<u>\$5,320</u>
Change to affordable housing installation with no other changes from base case during \$2.80 rebate level	2000 x \$2.80 x 1.25 =	<u>\$7,000</u>
Change to contractor install wind energy system and increase system size by 3000 Watts during January 2005 rebate level (\$1.70 for wind < 7.5 kW)	5000 x \$1.70 x 1.00 =	<u>\$8,500</u>

The amount reserved will be increased if the incentive calculated for the entire proposed project is higher than that already reserved.—The Energy Commission may not be able to increase the rebate amount reserved if no additional funds are available; or if the project size is increased to 30 kW or greater, or if the increase is not sufficient to result in a higher rebate calculation.—See Appendix 5 for additions to systems older than 18 months.

# VII. - Eligible System Costs

In most cases, the system cost will not affect the eligible incentive amount, but is needed for a variety of reasons.—First, the Energy Commission is interested in having information about system prices to evaluate future rebate levels and monitor whether the program goals are being achieved.—Second, total costs are needed to assure the incentive does not exceed the net purchase price of the system.

## A. What System Costs Are Eligible?

In addition to the cost of permits issued by local building departments or appropriate government entities, the labor to install the electricity generation system and sales tax, the program covers only the following specific eligible components and equipment:

**Photovoltaics:** The photovoltaic cells, modules, mounting or tracking structures, wire, inverters, foundation (for free-standing systems), simple kWh system performance meters, and utility required interconnection equipment.

**Small Wind:** The wind turbine, tower, wire, inverter, foundation (for free standing systems), simple kWh system performance meters, and utility required interconnection equipment.

**Solar Thermal:** The concentrating and collecting apparatus, tracking and mounting structures, wiring, thermal engines or devices for the conversion of heat to mechanical energy, generator, inverter, support structure and foundation (for free-standing systems), simple kWh system performance meters, and utility required interconnection equipment.

**Fuel Cells:** The renewable gas pre-treatment equipment (but not the gas collection or production equipment), fuel processor, cell stacks, inverter and power conditioning equipment, cooling equipment, foundation (for free-standing systems), simple kWh system performance meters, and utility required interconnection equipment.

### B. What Costs Are Not Eligible?

Many of the system costs included in the <u>purchase sales</u> or installation contracts may not be eligible.—<u>The purchaser or equipment seller retailer</u> must provide details to separate these costs from eligible costs.—<u>The cost of any equipment used to store the electricity produced is not eligible (e.g., batteries, charge controllers, battery cables, etc.).—<u>The cost of tools is not eligible.</u></u>

Other ineligible costs include items that are not typically required for the installation of an a given eligible system installation.—These ineligible costs include, but are not limited to, tree trimming, fencing, re-roofing, roof repairs or reinforcement, landscaping, relocating vent pipes, and moving HVAC or other equipment.—Additionally, financing

fees or costs incurred by either the <u>purchaser customer</u> or <u>the equipment seller retailer</u> are ineligible.

# VIII. - Special Funding

This chapter describes special funding and the corresponding eligibility requirements for applicants who <u>apply for incentives from the pilot performance-based incentive (PBI) program or apply for rebates to install systems on affordable housing or on <u>public</u> or charter schools.</u>

### A. Pilot Performance Based Incentive Program

This program offers incentive payments based on the actual electricity kilowatt hours generated by from photovoltaic(PV) systems participating in this pilot program. This section describes differences in eligibility requirements from what is already identified in these guidelines for standard applications seeking rebate reservations or payments.

The incentive payment is \$0.50 per kilowatt-hours (kWh) for electricity generated by from an eligible PV system and will be paid for three years. There is no limitation on the size of an the eligible systems, but funding is limited as described further below.

### 1. Measuring System Performance

System performance must be measured using a revenue-quality meter capable of measuring system generation in kWhkilowatt-hours. The performance meters required for rebates under Chapter II do not meet the measurement standards required for revenue-quality meters and therefore cannot be used as a substitute for a revenue-quality meter. A list of eligible revenue-quality meters is available at www.consumerenergycenter.org/erprebate/equipment.html. Applicants are responsible for all costs associated with the purchase and installation of a revenue-quality meter and must make arrangements with their electric utility for the meter's installation.

## 2. Collecting and Reporting System Performance

System performance data in kWh may be collected and reported to the Energy
Commission in one of two ways – by the applicant's electric utility or by a web-based
monitoring system administered by a third-party. Under option one, the electricity
produced by the system is collected and reported to the Energy Commission by the
applicant's electric utility. This option is available only if the applicant's electric utility is
willing to collect and report performance data to the Energy Commission. Applicants
wishing to pursue this option must make arrangements directly with their electric utility
and enter into any necessary agreements with their utility to ensure performance data is
recorded monthly and reported to the Energy Commission on a quarterly basis.
Applicants are responsible for all costs associated with their utility's collection and
reporting of performance data.

The second option is for performance data to be collected and reported to the Energy Commission using a web-based data acquisition system administered by a third party provider. Web-based data acquisition systems must meet the following criteria:

- Read and display meter output without requiring adjustments or resetting of the system
- Retain and display monthly kWh produced and total kWh produced to date

<u>A list of eligible data acquisition systems is available at www.consumerenergycenter.org/erprebate/equipment.html.</u>

Applicants wishing to pursue this option must make arrangements directly with a third party provider and enter into any necessary agreements with the third party provider to ensure performance data is recorded monthly and reported to the Energy Commission quarterly. Applicants are responsible for all costs associated with the purchase and installation of any equipment needed to utilize a web-based data acquisition system and for all costs associated with the third party provider.

### 3. Reservation Amount

The total amount reserved for a system under the pilot PBI program will be calculated based on a 25 percent capacity factor relative to the PTC rating of the PV array as follows:

Reserved Funds = (PV Array kW)<sub>PTC</sub><sup>13</sup>x (8760 hrs/year x .25 kWh/kW) x \$0.50/kWh x 3 years

This 25 percent capacity factor is purposely high to ensure that enough funds are reserved to make all payments. It is unlikely that a system can produce more energy than is estimated based on this equation. However, even if a system is shown to produce more energy, it will not be reserved or paid any more funds.

## 4. Limitation on Funding

The amount of funding available for any system or group of systems at one site is capped at \$400,000. In addition, the maximum level of funding available for all systems installed by any corporate or government parent<sup>14</sup> is capped at \$1,000,000.

<sup>13</sup> The PTC rating is based on PV USA test conditions and includes the efficiency rating of both the PV modules and system inverter (represents 1,000 watts/meter² solar irradiance, 1.5 Air Mass, and 20 degrees C. ambient temperature at 10 meters above ground level and wind speed of 1 meter/second).

14 For private sector entities, the holding company of the utility customer of record who is listed as the purchaser on the application. In addition, other business relations such as franchises or building associations will be handled as corporate parents and will be held to the same limitations and caps as corporate parents. State Government Parents are defined as: University of California, California State University, Department of Corrections, Department of General Services, the combination of the Department of Developmental Services and Cal Trans, the combination of the California Youth Authority and the Department of Mental Health, and all other state agencies and departments. Hence, the sum total of all reservations for a particular state agency, such as the Department of General Services, can not exceed \$1,000,000. Federal Government Parents are defined as Air Force, Army, Navy, Marines, Postal Service, General Services Administration, and all other federal agencies or

The incentives and reservation period under the pilot PBI program cannot be combined and cannot be used with other funding under the ERP or the Self Generation Incentive Program (SGIP) or the Rebuild San Diego Program approved by the California Public Utilities Commission or any other rebate program funded with electric utility using ratepayer funds. An applicant may not be issued a reservation for a system under the pilot PBI program if the applicant has already applied for or been issued a reservation for that system under the ERP or SGIP. Applicants who have applied for or been issued a rebate reservation under the ERP or SGIP, may apply for a reservation under the pilot PBI program only if they first notify the Energy Commission in writing of their desire to cancel their ERP or SGIP rebate application or reservation. Incentives received from other sources that lower the cost of a generating system may affect the amount of funding an applicant is reserved under the pilot PBI program. Twenty five percent (25%) of the incentives received or expected from other sources will be subtracted from the amount of funds reserved for a system if these other incentives are from a utility incentive program, a State of California sponsored incentive program, or a federal government sponsored incentive program, other than tax credits.

### 5. Reservation Period

The reservation period under the PBI is established into two parts – a is-12-months Preliminary Reservation, during which the applicant must to-purchase and install the proposed system, and a 3-year Final Reservation, during which the applicant may submit quarterly invoices to claim incentive payments for their system's generation.

Both the 12-month Preliminary Reservation and 3-year Final Reservation are fixed and may not be extended under any circumstances. and three years (successive and non-interruptable) to operate the system and collect incentives. No extensions of time will be granted under any circumstances. Applicants that are unable to purchase and install their proposed systems within 12 months of the issuance of their a-Preliminary Reservation Form (CEC 1038 R8) or the reservation will expire. In this case, the applicant may reapply for a new Preliminary Reservation by submitting a new Preliminary Reservation application, provided funds are still available under the pilot PBI program. Applicants that are unable to claim all of their incentive payments within 3-years of the issuance of their Final Reservation will lose any remaining funds reserved under the Final Reservation.

### 6. Preliminary Reservation Application Process

To apply for a Preliminary Reservation under the pilot PBI program, applicants must submit the following information consistent with the requirements for a standard rebate application as specified in Chapter IV.

 A completed Pilot Performance-Based Incentive Preliminary Reservation Request Form (CEC-1038 R7)

<u>departments. Local Government Parents (e.g., cities, counties, school districts, or water districts) are treated as Corporate Parents.</u>

- Copy of agreement(s) to purchase and install a system
- Evidence that site electricity load is supplied by an eligible utility
- Payee data record (Form STD-204) for the rebate recipient

<u>Completed applications and supporting documentation must be mailed to the following address:</u>

ERP, PBI Preliminary Reservation Request
California Energy Commission
1516 9<sup>th</sup> Street, MS-45
Sacramento, CA 95814-5512

The preliminary reservation application will be reviewed and processed in the same manner as rebate applications. (Refer to Chapter IV.) Approved preliminary reservation applications will be issued a Pilot Performance-Based Incentive Preliminary Reservation Confirmation Form (CEC 1038-R8) which identifies the amount of funds reserved for the applicant's identified system and the period of the time for which the funds are reserved 12 months from the issuance of the Preliminary Reservation Confirmation Form.

# 7. Final Reservation Application Process Payment Process

Once the PV system is installed and becomes fully operational, the applicant must complete and file their PBI Preliminary Reservation Confirmation Payment Request Form (CEC 1038-R8) and the same supporting documentation required for standard rebate applications. (Refer to Chapter V for description of supporting documentation.) In addition, the applicant must provide written authorization allowing the applicant's utility or web-based monitoring system administrator to share applicant data with the Energy Commission for auditing purposes.

<u>Completed Preliminary Reservation Confirmation Forms and supporting documentation</u> must be mailed to the following address:

ERP, PBI Preliminary Reservation Confirmation
California Energy Commission
1516 9<sup>th</sup> Street, MS-45
Sacramento, CA 95814-5512

Submitting the Preliminary Reservation Confirmation Payment Request Form verifies that the system remains eligible for funding and was installed within the 12- month preliminary reservation period, s of the reservation's issuance and provides the Energy Commission with the necessary information for collecting energy production data and making payments. The Preliminary Reservation Confirmation payment request Fform identifies information about the installed system's specifications and appropriate information to verify the system's first meter reading and start date for purposes of

issuing incentive payments. If the installed system varies from the system identified in the preliminary reservation request application, the applicant must identify the differences on the Preliminary Reservation Confirmation Form when submitted to the Energy Commission. If the installed system is smaller in size than was identified in the preliminary reservation request application, the funds reserved for the applicant will be reduced accordingly and reflected on the Final Reservation. If the installed system is larger in size, the funds reserved under the preliminary reservation will remain the same. If the installed system does not satisfy the requirements for PBI funding, the applicant's preliminary reservation will be cancelled and a final reservation will not issued.

<u>Upon review and approval of an applicant's Preliminary Reservation Confirmation Form, the Energy Commission will issue the applicant a PBI Final Reservation (CEC 1038-R9), which identifies the applicant, the installed system, the amount of funds reserved for the system, and the three-year funding reservation period during which incentive payments may be claimed by the applicant.</u>

### 8. Payment Claim Process

To claim incentive payments, applicant must submit quarterly invoices to the Energy Commission using the PBI Invoice Form (CEC 1038-R10). The monthly, quarterly, and cumulative generation of applicant's system must be separately identified on the Invoice Form. This form must be supported with a statement from the applicant's electric utility or web-based monitoring system administrator verifying the monthly and quarterly generation of applicant's system for the invoice period. In addition, the Invoice Form must identify any changes to the system, the system's ownership, or any system funding the applicant may have received from other sources after issuance of the PBI Final Reservation. This information is needed to ensure the system and the applicant remain eligible for PBI funding. If system funding is received from other sources, the PBI funding reserved for the applicant will be reduced in accordance with Section 4 and a revised PBI Final Reservation issued.

<u>Completed Invoice Forms and supporting documentation must be mailed to the following address:</u>

ERP, PBI Payment Claim

California Energy Commission

1516 9<sup>th</sup> Street, MS-45

Sacramento, CA 95814-5512

<u>The Energy Commission expects to make payments within 4 to 8 weeks of receipt of complete invoices.</u>

### 9. System Operation

All applicants assume full responsibility for the operation and funding eligibility of their systems. Incentive payments will only be made to an applicant if the applicant's system remains operational and eligible for funding, and the applicant submits the necessary quarterly invoices and supporting documentation prior to the expiration of the three-year final reservation period.

If any equipment is added to or removed from the system during the three-year final reservation period, the applicant must notify the Energy Commission in writing. If the system is reduced in size, the amount of funds reserved will be reduced accordingly and the applicant will be issued a revised PBI Final Reservation. If the system is increased in size, the funds reserved will remain the same. In either case, the three-year final reservation period will not change. If, as a result of system changes, the applicant or system is no longer eligible for funding, the applicant's PBI Final Reservation will be cancelled.

# 10. Program Evaluation

The Energy Commission will monitor participation in the pilot PBI program and make a determination on the adequacy of the program design and incentive level. After one year, the Energy Commission will evaluate the pilot program to determine if the objectives outlined for the pilot program have been met.

As a condition of receiving incentive payments under the pilot PBI program, applicants must agree to participate in an evaluation process whereby the Energy Commission or its representatives may conduct telephone interviews and/or on-site visits, and analyze data collected from installed system monitoring equipment.

# A.B. Special Funding for Affordable Housing Projects

Pursuant to Assembly Bill 58 [AB 58, Keeley, (Statutes Of 2002, Chapter 836)], the Energy Commission has established an additional rebate for systems installed on affordable housing projects.—Affordable housing projects may qualify for an extra 25 percent rebate above the standard rebate level, not to exceed 75 percent of the system cost, if the following additional criteria are met:

 The affordable housing project was undertaken pursuant to section 50052.5, 50053. or 50199.4 of the Health and Safety Code.—Provide a copy of the regulatory agreement for the property or the property title that expressly limits residency to extremely low, very low, lower or moderate income persons as defined by the Health and Safety Code section 50052.5, 50053. or 50199.4, or regulations adopted by the California Department of Housing and Community Development.

- Each residential unit (apartments, multifamily homes, etc.) has an individual electric utility meter.—Provide documentation from the electric utility confirming service and meter number.
- The housing project is more than 10 percent more energy efficient than the current standards specified in Title 24 of the California Code of Regulations, standards or has already taken measures to reduce the energy use of the building or unit by 10 percent as calculated per Title 24 compliance models (usually C2R model runs).

# **B.C.** Special Funding for Public and Charter Schools

Pursuant to Interagency Agreement No. R500-02-006, amended February 4, 2004, the Energy Commission and the California Power Authority have established the Solar Schools Program to provide a higher level of funding for public and charter schools to encourage the installation of photovoltaic generating systems at more school sites.—In 2002, the Energy Commission was unable to secure budget authority from the Department of Finance to expend the funds from the Attorney General's Alternative Energy Retrofit Account (AGAERA).—The additional funds for the Solar Schools Program total \$2.25 million and are now available from the AGAERA.—Fifteen schools were granted preliminary reservations in 2002 that could not be funded under the Solar Schools Program.—These districts will be given preference until June 21, 2004 to reapply to this program for the sites for which they originally applied.

Installations of photovoltaic systems at school sites totaling less than 30 kilowatts in size per school district may qualify for additional funding from the AGAERA equal to the standard rebate offered to other ERP applicants for photovoltaic systems.—If the standard rebate available is \$2.803.20 per Wwatt, the rebate available for an eligible public or charter school would be \$5.606.40 per Wwatt.—However, the total funding incentive (Energy Commission plus AGAERA funds) may not exceed the total installed system cost. To further assist schools, any costs above the total rebate incentive may be financed through a loan from the Energy Commission's Energy Efficiency Financing Program or through a loan from another public agency.—Such loans will not be considered in adjusting the ERP rebate level available for the school.—Schools approved for the additional incentives will be given reservations of 18 months total, including any preliminary reservation period.

## 1. Requirements for the Solar Schools Program

To be eligible, schools must show they meet all eligibility requirements for the standard rebate and demonstrate they meet the following additional criteria:

• The public or charter school provides, or will provide, instruction for any grade between kindergarten through 12<sup>th</sup> grade

- The school has already installed high efficiency fluorescent lighting (T8 lamps and electronic ballasts) in at least 80% of classrooms or has implemented other energy efficient measures with equivalent or greater energy savings as determined by the Energy Commission
- The school agrees to establish a curriculum tie-in plan to educate students on the benefits of solar energy and energy conservation

Schools that do not meet the requirements of the Solar Schools Program may still qualify for the standard rebate offered.—Schools with an existing standard rebate reservation may reapply for the higher rebate if the system has not been completed. Schools that were granted preliminary reservations in 2002 may reapply for the higher rebate even if the system has been completed.—To reapply, submit a completed Solar Schools Reservation Request Form and a new CEC 1038-R1 form.

# 2. How to Apply to the Solar Schools Program

To obtain the full reservation for the additional rebate incentive, participating school districts must submit a complete standard application (CEC 1038-R1 and supporting documents) and provide the following additional information for each school where a system is planned:

**Solar Schools Reservation Request Form -** Complete the Solar Schools Reservation Request Form identifying the planned sites for installation.

**Proof of Energy Efficiency** - Check the box on the Solar Schools Reservation Request Form indicating that the energy efficient lighting measures already installed comply with the high efficiency lighting requirement (T8 lamps and electronic ballasts) or provide additional documentation to show that other energy efficient measures with equivalent or greater energy savings have been installed.—For further information on energy efficiency, please contact the Energy Commission at (916) 654-3838.

**School Board Resolution** – Provide a signed board resolution clearly indicating all of the following:

- Intent to purchase and install an eligible photovoltaic system at the specified site(s)
- Support to operate and maintain the system for its useful life
- School commitment to establish a curriculum tie-in plan to educate students on the benefits of solar energy and energy conservation

The Solar Schools Reservation Request Form is included in Appendix A of this guidebook.—The form and attachments may be faxed to (916) 653-2543 or be mailed to:

**ERP Schools** 

California Energy Commission 1516 9<sup>th</sup> Street, MS-45 Sacramento, CA\_95814-5512

# 3. Preliminary Reservation Option

If the funding is not entirely reserved by applicants meeting all of the above criteria, a preliminary reservation may be given to school districts that are initially able to provide all of the following information, but have not yet signed a system purchase and installation agreement(s):

- Solar Schools Reservation Request Form
- · Proof of meeting the energy efficiency criteria
- Board resolution
- Electric utility bill for each school

The preliminary reservation would allow the school district six months to solicit bids and contract for a system purchase and to complete their application.—\_This six month period is available to any preliminary reservation issued on or after May 19, 2004.

To secure the full reservation for a participating school, the Reservation Request Form (CEC 1038-R1) must be submitted before expiration of the preliminary reservation. The required attachment to the completed CEC 1038 R1 form is a copy of the agreement(s) to purchase and install the specified system.—Preference will be given to those applicants that are able to satisfy the full reservation criteria and do not need preliminary reservations.

Schools that are able to convert their preliminary reservations into full reservations will be issued full reservations for a period not to exceed the difference between 18 months and the length of their preliminary reservation.—For example, schools which are able to convert their preliminary reservations to full reservations within five months, will be issued full reservations for a period of 13 months from the date of conversion (the date the complete application for the full reservation is submitted.)

4.\_\_\_\_

# 4.\_\_\_\_Payment Requests and Forms

To request the rebate payment once the system is installed, the applicant must submit the Payment Claim Form (CEC 1038-R2) with the same attachments required for any other participant in the Emerging Renewables Program. Instead of a building permit, submit documentation from the Division of State Architect confirming their standards have been met.

Blank forms for requesting a reservation or filing for payment can be obtained by calling the Energy Commission call center at 1-800-555-7794 or from the Energy Commission web site at:

[http://www.consumerenergycenter.org/erprebate/index.html]

No funds will be reserved until all the information and documentation required for the preliminary reservation request and/or standard reservation request is received by the Energy Commission. Applications will not be processed if they are not complete and legible.

# **Appendix 1 - Forms and Worksheets**

CEC 1038 R1- Reservation Request Form (All technologies)

STD 204 - Payee Data Record

CEC 1038 R2 - Payment Claim Form

CEC 1038 R3 - Minimum Warranty Form

CEC 1038 R4 - Equipment Seller Information Form

CEC 1038 R5 - Reservation Payment Assignment Form

CEC 1038 R6 Time Extension Request Form Solar Schools Reservation Request Form

CEC 1038-R1, (1-2005)

**R1** 

# RESERVATION APPLICATION FORM EMERGING RENEWABLES PROGRAM

KI	EMERGING RENEWABLES PROGRAM							
1. System Site of	Installation		Subr	nit complete	e application	n to:		
Street Address: City:  2. Purchaser Nar	ne and Mailing Ac	State: Zip	Emei 1516	ornia Energ rging Renev Ninth Stree amento, CA	vables Prog t	gram (MS-	45)	
			6 Equ	uipment (PV	/ modules,	turbines,	inverters,	meters)
				Quantity	Manufact	urer, Mod	lel (see CE	EC lists)
			atin					
			Generating Equipment					
Phone:		Fax:	<u> </u>					
3. Equipment Sel	ler (Must be regi	stered)	ý "					
Company:			Inverters,					
City:		CEC ID (if known)	ŽŽŽ					
Phone:		Fax:	Estim	ated annual	eneray prod	uction		kWh/Year
4. System Install	ation (Write "Owr	ner" if not hiring contractor)		ebate an				
Company:				em Rated Ou				Watts
City:		License No.:		System Cos	•	<u></u>		watts
Phone:		Fax:		cted Rebate		Ψ		
5. Electric Utility (A	Attach all pages of	monthly statement)		Rebate to:	•	Ψ	haser □ S	— Seller
□ PG&E □□ SCE		Service ID:		sign payme	 nt2			
Billing Period:		KWh Used:		s, submit fo				ıest.
Note: If new constru	otion attach building	normit Dormit No		r Incentives:		\$	/	
8. Declaratio		permit. Fermit No	Sourc	ce/Record N	0.:			
The undersigned parties declare under penalty of perjury that the information in this form and the supporting documentation submitted herewith is true and correct to the best of their knowledge and that the following is true:  1. All system equipment is new and unused and has been purchased within the last 18 months,  2. The generating system is intended primarily to offset Purchaser's electrical needs at the site of installation  3. The Purchaser's intent is to operate the system at the above site of installation for its useful life or the duration of the lease agreement and  4. The generating system will be interconnected with the distribution system of the electric utility identified above.  The undersigned parties further acknowledge that they are aware of the requirements and conditions of receiving funding under the Emerging Renewables Program (ERP) and agree to comply with all such requirements and conditions as provided in the Energy Commission's ERP Guidebook and Overall Program Guidebook as a condition to receiving funding under the ERP. The undersigne Purchaser authorizes the Energy Commission during the term of the ERP to exchange information on this form with the Purchaser's electric utility to verify compliance with the requirements of the ERP.  Purchaser Signature  Equipment Seller Signature					e lease nder the nergy dersigned			
·				• •		•		
Print Name:			Print Name:					
Signature:		Date:	Signature	:			Date:	<del></del>

Necessary Supporting Documentation.

- All pages of a monthly electric utility bill.
   Agreements to purchase and install equipment.
- 3. Payee Data Record (Form STD-204) if payee identified has not previously been paid by the Energy Commission.

  4. If not a standard rebate application, attach other required documentation as specified in the ERP Guidebook.

### INSTRUCTIONS FOR THE RESERVATION REQUEST FORM (CEC 1038 R1)

Title Box:-\_Indicate if the request is to modify an existing reservation application, is for affordable housing, new construction or a school.

### Section 1. Application Type

Mark the box(es) that identifies the type of application. If applying for the first time or reapplying after an application was rejected identify it as "New Application". If you have an active reservation and are making changes to the original system and amount reserved mark "Modify an Active Reservation" and identify the record number. If generation is being added to a pre-existing system or additional generation is being added at the site mark "Adding to pre-existing system and identify the previous record number.

### Section 24. Purchaser

Provide the purchaser name, complete installation address, mailing address (if different from the installation address), company name if appropriate, and phone\_and fax number and email address. - IndentifyIdentify whether the physical address of installation is the purchaser's personal residence, business, or other. If other, please provide an explanation. If the physical address of the installation is the seller's retailer's office or personal property, list the supplier of the PV modules or wind turbine as the seller.—Check the box indicating whether the purchase seller or both are to be the primary contact for questions. Check the box indicating the name of the electric utility serving the installation location.

#### Section 2. Seller

Provide the seller company name and a contact person name, complete address, phone and fax number and email address.

Check the appropriate box for whether the system is to be installed by a contractor (include contractors license class, number and expiration date) or other, such as "owner install." If installed by a contractor, provide the contractor's company name and contact person name, complete address and email address. All contractors must have an active "A", "B" "C 10" or "C 46" license. A standard five year warranty form (Form CEC 1038-R3) must be submitted later when payment is requested for systems installed by a contractor.

#### Section 34. System Equipment

Provide the exact name of the manufacturer and model number for the generating equipment, inverter manufacturer, the inverter model, the quantity number of each type of generating equipment and inverters, the power rating in watts, the efficiency at % load and Be sure to include indicate whether the inverter includes an eligible performance (kWh) meter if the inverter does not contain an eligible performance meter. Eligible generating equipment, inverters and rating information is located on the Commission's website

www.consumerenergycenter.org/erprebate - Identify the performance (kWh) meter manufacturer, complete model number and the number of meters. Check the box to indicate whether the inverter includes an eligible meter. Indicate the calculation method used to determine the estimated energy production value in kWh. For photovoltaic systems for example, Clean Power Estimator or PV installers guide methodology. Identify the manufacturer name of the generating equipment and the complete model number, the quantity of generating equipment and the rated output (for PV use the PTC rating). Calculate and include the system output by multiplying the inverter efficiency at \(^3\) load by the quantity of equipment used, by the rating in watts (PTC rating for PV). If the inverter rated output is less than the system output (kW), the inverter rated output will be used to calculate the rebate. -Where more than type of inverter is used the weighted average inverter efficiency will be used.

### Section 4. System Installation

Check the appropriate box for whether the system is to be installed by a contractor hired to install the system or "owner install." If installed by a contractor hired to install the system, provide the contractor's company name, contractors license number and class. All contractors must have an active "A", "B" "C-10" or "C-46" license. Identify the date the contract was signed and the total contract price specified in enthe contract. A standard five year warranty form (Form CEC 1038-R3) must be submitted later when payment is requested for systems installed by a contractor. The contractor must sign and date the application form (R1) to certify there is an agreement meeting the guidebook criteria already in place as identified in the form.

### Section 5. Equipment Purchase Information

Check the box that best identifies what agreement is in place to show what equipment is being purchased. If the equipment is being purchased as part of the labor contract with a licensed contractor check the first box and go to the next section. Otherwise, identify Provide the name of the equipment seller's company -name and city where located, and identify the date the purchase agreement centract was signed and the total price of the purchase agreement. The equipment seller must be registered with the Energy Commission each year for the application to be considered. The seller must sign and date the application form (R1) if the seller is the designated payee of the rebate, to certify there is an agreement meeting the guidebook criteria already in place as identified in the form.

Self Explanatory. Please note that the purchaser signature now authorizes the Energy Commission to exchange purchaser information with

the utility in order to verify compliance with the Emerging Renewables Program (ERP) requirements.

### Section 67. Utility Bill

Identify the Purchaser's electric utility provider at the site where the system will be installed. Also identify from a monthly billing statement the Electric Account Number, billing start and end period, and the energy usage in kWh for that monthly period.

### Section 786. Incentive and System Cost InformationRequested

Calculate and include the system output by multiplying the inverter efficiency rating by the quantity of equipment used, by the rating in watts (PTC rating for PV). If the inverter rated output is less than the system output (kW), the inverter rated output will be used to calculate the rebate. Where more than on type of inverter is used the average inverter efficiency will be weighted based on inverter rated capacity and the sum of the inverter rated output capacities will specify the maximum system output for determining the rebate.

Identify incentives expected or received from other sources. \_Provide the system installed cost (before the ERP rebate). The ERP requires that incentives from other sources be accounted for before determining the rebate from the ERP - Fifty percent of any incentive received or expected from a utility incentive program, a State of California or federal government sponsored incentive program, other than tax credits, must be subtracted from the ERP rebate amount requested. - The "Total Request" should therefore be based on the ERP rebate level in place at the time the application is received by the Commission and the system cost after subtracting other incentives.—. If an incentive from the ERP was received previously for this site, include the incentive amount and, if known, the reservation number, for the prior application. Check the box indicating whether the incentive is to be paid to the purchaser or seller.

### Signatures:

The purchaser must always print and sign his or her name on the form.—If the seller is designated as the payee, the seller must also sign his or her name on the form. Please indicate if the rebate payment is to be assigned to a third party. A third party is an entity other than the purchaser or seller.—If yes, please fill in the name and address in the space provided and attach the original of the assignment form (CEC 1038 R5).—The assignment form must contain original signatures.—Payees that assign the rebate payment to a third party will still be reported as the recipient of the payment(s) for tax purposes.

Evidence of an agreement to purchase and install can consist of a signed copy of the system or equipment purchase agreement(s) and a signed installation contract(s), or proof of 10% down payment of the major equipment price (through invoices or receipts) and an installation contract. If the system will be located at a new residence please include verification, such as a letter from the utility or a statement indicating the utility name and address at which the system will be interconnected or a signed statement from the seller or purchaser identifying the utility provider and the physical address where the installation is to occur

### Submit your request only by mail to:

ERP, Reservation Request California Energy Commission 1516 9<sup>th</sup> Street, MS-45 Sacramento, CA-95814-5512 THIS PAGE FOR PAYEE DATA RECORD FORM (STD-204)

THIS PAGE FOR INSTRUCTIONS TO COMPLETE THE PAYEE DATA FORM

CEC- 1038 R2 (07-2004)

# REBATE PAYMENT CLAIM FORM **EMERGING RENEWABLES PROGRAM**



Mail complete payment claim to: **California Energy Commission ERP**, Payment Claim

Record Number

CALIFORNIA ENERGY COMMISSION		n Street (MS-45) to, CA 95814-5512	Payee Number
[CEC use only ]		[CEC use only]	
	_	Tot.Elig.Cost: \$	Date CFA:
		SRO Watts: F	Rebate @= \$
1. Confirmation of Reservation Amount			
has been granted a reservation will expire of and is expected to positive  The generation system must be completed and the claim su	onon	The syste (kWh per ye	m is being installed at ear).—The payment will be made to be by the deadline.—Claims must be
pdstmarked—by the expiration date or the reservation will exinstallation address and sold to the above.			_System must be installed at the
2. System Equipment (Modules, Wind Turbines, In			
Number Manufacturer Model		Total System Price	<u> </u>
		Amount maid by mural	basarta data. C
		Amount paid by purc Orientation: W, SW, S	
			5-30, 30-45, >45 degrees
		Tracking system type	
3. Modifications			
Has any of the information in section 1 or 2 about the changes before claiming paymer		d?–_□ Yes– <sub>□</sub> □ No	
The undersigned <u>parties</u> declare under penalty of perjury the true and correct to the best of their knowledge. The parties correct to the best of their knowledge:	further declar	e under penalty of perjury tha	t the following statements are true and

The electrical generating system described above and in any attached documents meets the terms and conditions of the California Energy Commission's Emerging Renewables Program and has been installed and is operating satisfactorily as of the date stated below. (4)(2) The electrical generating system described above and in any attached documents is property interconnected to the utility distribution grid and has or will be issued utility approval to operate the system as interconnected to the distribution grid.

The rated electrical output of the generating system, the physical location of the system, and the equipment identified were installed as

Except as noted above, `there were no changes in the information regarding the seller, installer, purchaser, generating system specifications, installation location, or price from that information provided in the Reservation Request Form originally submitted by the undersigned.

The undersigned parties further acknowledge that they are aware of the requirements and conditions of receiving funding under the Emerging Renewables Program (ERP) and agree to comply with all such requirements and conditions as provided in the Energy Commission's ERP Guidebook and Overall Program Guidebook as a condition to receiving funding under the ERP. As specified in the ERP Guidebook, tThe undersigned Ppurchaser authorizes the Energy Commission during the term of the ERP to exchange purchaser information on this form with the Peurchaser's electric utility in order to verify compliance with the ERP requirements. If a copy of the utility "letter of authorization to operate" the stem is not submitted with this payment claim form, the undersigned Purchaser understands that he/she is obligated to submit a copy of this etter to the Energy Commission once it is received.

### FINAL DRAFT GUIDEBOOK - DECEMBER 2004 JANUARY 2005

Purchaser	Seller	Is payment assigned to
Print Name:	Print Name:	another party? ☐ Yes
Signature:	Signature:	If yes, attach the payment
Date:	Date:	assignment form (CEC 1038 R5) with original signatures.
		with original signatures.

Necessary Supporting Documentation

Also Attach: 1. Final Initial building permit and final inspection signoff;

2.-Final invoice(s) purchase and installation invoice(s) confirming the total amount paid for the system equipment and installation; amount paid; 3. Five-year warranty (CEC 1038 R3 form); 4. Utility letter of authorization to interconnect the system or the Peurchaser's authorization form to access Peurchaser's utility data, 5. Utility bill or other proof of electrical service and consumption at the site of installation if not previously provided. ferometrication; 7. Payee Vender Ddata Record (STD-204), if not provided with initial application or the payee was not previously paid by the Energy Commission in the last two years.record not previously filed.

# INSTRUCTIONS FOR THE REBATE PAYMENT CLAIM FORM (CEC 1038 R2)

The CEC 1038 R2 form is used to request payment for a completely installed and operational renewable energy system.—The form specifies information about the renewable energy system that was to be installed at the time the reservation request was initiated.—It also serves as a means of documenting what changes occurred from the time the reservation request was processed until the time the system was installed. The payment claim form must be submitted before the reservation expires.

### Section 1. Confirmation of Reservation Amount

Self explanatory.

### Section 2. System Equipment Installed

Fill in the equipment information requested including the number of units and the make and complete model number.—Enter the total system price and the amount paid by purchaser to date. If the system is a PV system, identify the system's orientation, tilt, and type of tracking system, if any.

#### Section 3. Modifications

Check the "yes" box if changes were made to the system and note any changes in the information from the previously submitted Reservation Request Form.—If more space is required to note changes, additional pages may be added to the form.—Changes in equipment from the original application may affect its eligibility and the amount of the rebate.—If no changes were made, check the "no" box.

### Signatures:

The purchaser must always print and sign their name on the form.—If the seller is the rebate payee, the seller must also print and sign their name on the form.—Enter the date of each signature.—Original signatures are required on the form.

Please indicate whether the rebate payment is to be assigned to a third party.—A third party is an entity other than the purchaser or seller.—If yes, please fill in the name and address in the space provided and attach the original of the assignment form (CEC 1038 R5).—The assignment form must contain original signatures.—Payees that assign the rebate payment to a third party will still be reported as the recipient of the payment(s) for tax purposes.

#### Attachments:

Several attachments to the form must also be submitted before the claim will be processed.—These include:

- A copy of the final building permit and final signoff
- A copy of the final purchase and installation invoices confirming the total amount paid for the system equipment and installation amount paid
- A copy of the completed and signed CEC 1038 R3 form
- Letter of authorization from the utility to interconnect the system or Ppurchaser's authorization to access utility data.
- A copy of the utility bill or other proof of electrical service and consumption at the site of installation if not previously provided the installation location was a new facility without electrical service when the reservation request was submitted,

### Building Permit and Final Signoff:

The name and address on the building permit must match the installation address on the payment claim form.

### Invoices:

The invoices must clearly identify the work that was done and the amount paid.—\*This includes identifying the quantity, make and model numbers of major equipment installed and the labor charge for installation.—\*To meet this requirement you may submit a copy of the final invoice(s) or a copy of the final contract(s) showing a zero balance or the amount paid by the purchaser. The invoice or contract should also indicate the extent to which the Commission's rebate lowered the cost of the system.—\*Copies of bank statements, cancelled checks, or credit card statements may also be requested by Energy Commission staff.—\*The final system price paid by the purchaser should match the price shown on any contract or invoice previously submitted.—\*Any differences must be explained.

### Warranty

Complete and attach the CEC 1038 R3 form.

Letter of authorization from the utility to interconnect the system or purchaser signature of R2 form authorizing CEC to exchange purchaser information with the purchaser's utility. The address in the utility interconnection letter must match the address of the installed system.

### Claiming a Rebate Without a Prior Reservation

To claim a rebate without a previously approved reservation, you must also submit a completed and signed Reservation Request Form (CEC 1038 R1).

### Submit your request only by mail to:

ERP, Payment Claim California Energy Commission 1516 9<sup>th</sup> Street, MS-45 Sacramento, CA-95814-5512

Allow at least 6 to 8 weeks from receipt of a complete payment claim application for payment.—Payment will be mailed to the retailer or purchaser as indicated on the Reservation Request Form at the address indicated on the Payee Data Record form (STD-204), unless you have assigned payment to a third party.

CEC- 1038 R3 (07-2004)

R3

# MINIMUM WARRANTY FORM EMERGING RENEWABLES PROGRAM

173	EMERGING RENEWABLES PROGRAM
system Description	formation  Introduction  It is applied to the following kW renewable energy electric generating  It is applied to the following kW renewable energy electric generating  It is applied to the following kW renewable energy electric generating
What is Co	overed
This five year	warranty is subject to the terms below(check one of the boxes):
the full of custome electrical	<b>AND</b> the system's installation. Said warrantor shall bear cost of diagnosis, repair and replacement of any system or system component, at no cost to the er. This warranty also covers the generating equipment against breakdown or degradation in all output of more than ten percent from the originally rated output (PTC rating for modules, cturers rating for wind turbines); or
any syst	's installation <u>only.</u> Said warrantor shall bear the full cost of diagnosis, repair and replacement of tem or system component, exclusive of the manufacturer's coverage. (Copies of five-year warranty tes for the major system components (i.e., solar modules, wind turbines, etc. and inverter- <u>MUST</u> ded with this form).
General Te	erms
location durin owner", and "	extends to the original purchaser and to any subsequent purchasers or owners at the same g the warranty period.—_For the purpose of this warranty, the terms "purchaser", "subsequent purchase" include a lessee, assignee of a lease, and a lease transaction.—_This warranty is (date of completion of the system installation).
Exclusions	S
<ul><li>Damage, the syste</li><li>Damage, or service</li><li>Damage</li></ul>	does not apply to: malfunction, or degradation of electrical output caused by failure to properly operate or maintain m in accordance with the printed instructions provided with the system. malfunction, or degradation of electrical output caused by any repair or replacement using a part e not provided or authorized in writing by the warrantor. malfunction, or degradation of electrical output resulting from purchaser or third party abuse, alteration, improper use, negligence or vandalism, or from earthquake, fire, flood, or other acts of
Obtaining	Warranty Service
Name: Company:	Phone: () Fax:()
Signature:	Date:

CEC- 1038 R4 (07-2004)

**R4** 

# EQUIPMENT SELLER INFORMATION FORM EMERGING RENEWABLES PROGRAM

This information must be submitted before a company can become eligible to participate in the ERP. To remain eligible, a company must resubmit this form annually, by March 31. This annual submittal is required even it the information identified in the company's prior R4 submittal has not changed. In addition, a company must submit an updated R4 form any time its reported information has changed. The updated R4 form must be submitted to the Energy Commission within 30 days of the change of any reported information. Registered companies are listed at -www.consumerenergycenter.org/erprebate/database/

Business name:	Phone: ()
Address:	Fax :()
	Email:
	Web Site:
Owner or principal. Title contact:	Select one of the following
Business license number:	☐ Corporate, LLC, LLP or other that is registered with the California Secretary of State (or appropriate state attached)
Reseller's license number:	□ Not a corporation, LLC or LLP
Contractor license number (if applicable):	
The above information applies solely to the bus	siness identified above:
Print Name:	Title:
Signature:	
Date:	
Send this completed form by telefax to (916) 6	53-2543 or by mail to:
ERP Seller Registration	
California Energy Commission 1516 9 <sup>th</sup> Street, MS-45	
Sacramento, CA95814-5512	
Reminder: This form mustay be on file with the Energy	/ Commissionsubmitted for a rebate
application with the above company to be of	
to become eligible to participate in the ERP	

March 31 for sellers to remain eligible from year to year.

CEC- 1038 R5	(07-2004)			
R5	RESERVATION PAYMENT ASSIGNMENT FORM EMERGING RENEWABLES PROGRAM			
CALIFORNIA EN	RENEWABLE ENERGY PROGRAM HERGY COMMISSION	Record Number Payee ID Number		
Posorvotio	on Information			
Reservatio				
	Payee Name: Payee Address:	<del></del>		
	rayee Address.	<del></del>		
	Payee Contact:	<del></del>		
	Payee Phone #:	<del></del>		
	i ayee i none #.	<del></del>		
Assignme	nt Request			
l,		, the designated payee or authorized representative of the		
		o receive payment for the above noted reservation under the		
Emerging F	Renewables Program	to the following individual or entity:		
	Name:			
	Address:	<del></del>		
	Address	<del></del>		
	Phone #:	<del></del>		
		<del></del>		
	at payment be forwa e forwarded to me.	rded to this individual or entity at the address noted and that proof of		
Acknowled	gement			
complying value tax consequence further under Commission Technology	with the requirements uences associated we erstand that I may ren's processing of the Market Developmer	norized representative, I understand that I remain responsible for sof the Emerging Renewables Program and will remain liable for any ith the reservation payment, despite the payment's assignment.—I woke this payment assignment at any time prior to the Energy payment by providing written notice to the Energy Commission's at Office.—Such notice shall be provided to: Emerging Renewables amission, 1516 9th Street, MS-45, Sacramento, CA—95814-5512.		
Executed o	n:	Signature:		

This completed form may be submitted with either the Reservation Request Form (CEC 1038 R1) or the Reservation Payment Claim Form (CEC 1038 R2) for standard rebates, or either the Preliminary Reservation Request Form (CEC 1038 R7) or the Preliminary Reservation Confirmation Form (CEC 1038 R8) for the Pilot PBI Program.—This form may not be submitted by telefax, as original signatures are needed to process assignment requests.

Name:-\_

Title:

# **Solar Schools Reservation Request Form**



The Emerging Renewables Program

Completed forms must be mailed to: ERP Schools California Energy Commission 1516 9th Street, MS-45 Sacramento, CA 95814-5512

	The Emerging Ren		Sacramento, CA	99014-9912	
Payee Designatio	n:	☒ School District		3. Utility Provider  Electric Utility Provider: □ PG&E □ SCE	
1. School Dis	strict			☐ SDG&E	
District Name: Contact Person:				4. Program Information	
Mailing Address:				How did you hear about our program?  Have you previously applied for funding rebates fro	
Business:( Email:	)	Fax: (	)	☐ yes ☐ noIf yes, reservation  5.Statement of energy efficient mea	
2. Participati School Name:	ng Schools			For each of the participating schools identified on thi appropriate box:	
Address:		- ,	,	At least 80% of the classrooms use high efficiencescent lighting (T8 lamps and electronic ballas	
Business:(		Fax: (		Other energy efficient measures with equival energy savings to Item 1 (as determined by the Couse (documentation attached).	•
Estimated size of p School Name:	ohotovoltaic system:-	V	Vatts.	6. Incentive Requested	
Address:				Sum of Total Watts	
Business:(	)	Fax: (	<del></del> _)	Total Incentive Requested \$	
Email: Estimated size of p	photovoltaic system:-	V	Vatts.	☐—Full reservation request (CEC 1038 R1 and sudocumentation for each site attached) or:	upporting
School Name:				☐—Preliminary 6 month reservation request	
Address:		_ ,		NOTE:Sum of all new systems installed in school exceed 30 kW.	ol district may not
Business:( Email:	<del>-</del> _)	Fax: (	<sub>=</sub> <sub>=</sub> )	7. Information for Additional School	ols
Estimated size of p	ohotovoltaic system:-	- <u> </u>	Vatts.	☐ See attached for information on other schools s this application (name, address, phone, estimated signature of school official).	
supporting docume intended primarily territory of an eligibunder the Emergin provided in the Engage specified in the ER	entation submitted he to offset part or all of ble electric utility. The g Renewables Progra ergy Commission's E P Guidebook, the un	rewith is true and co the school's electric undersigned ackno am (ERP) and agree RP Guidebook and dersigned, on behal	orrect to the best of cal needs at the site owledges that he/shi es, on behalf of the Overall Program Gu If of the school distri	penalty of perjury that 1) the information provided in his/her my knowledge, 2) the above described gener of installation, 3) the site of installation is located with e is are aware of the requirements and conditions of school district, to comply with all such requirements audebook as a condition to receiving funding under the ict, authorizes the Energy Commission during the terric utility in order to verify compliance with the ERP research.	rating system is hin service receiving funding and conditions as e ERP. As m of the ERP to
B	School District	-		CEC Review	
Data					

### FINAL DRAFT GUIDEBOOK - DECEMBER 2004 JANUARY 2005-

IMPORTANT: Attach the following minimum documentation: (1) a signed copy of the board resolution(s) indicating support for the solar project and intent to purchase a photovoltaic system; (2) a copy of a monthly electricity statement; (3) evidence that energy efficient measures equivalent to the use of high efficiency fluorescent lighting in 80 percent of the school's classrooms. This form will not be processed without the required attachments.

Submit complete application to:

CEC- 1038 R7 (1-2005)

1. System Site of Installation

**R7** 

# PILOT PERFORMANCE BASED INCENTIVE PROGRAM PRELIMINARY RESERVATION REQUEST FORM EMERGING RENEWABLES PROGRAM

Street Address:		ERP, PBI Preliminary Reservation Request		
City:	State: Zip	California Energy Commission		
2 Durchassy Name and Mailing A	daluaca	1516 Ninth Street (MS-45)		
2. Purchaser Name and Mailing A	auress	Sacramento, CA 95814-5512		
		6 Equipment (PV modules, turbines, inverters, meters)		
		Quantity Manufacturer, Model (see CEC lists)		
		Generating Equipment		
		dui e e e		
Phone:	Fax:			
3. Equipment Seller (Must be regis	stered)	s ers		
Company:		Inverters, DAS/Meters		
City:	CEC ID (if known)			
·	,			
Phone:	Fax:			
4. System Installation (Write "Own	ner" if not hiring contractor)	7. Rebate and Other Incentives		
Company:				
City:	License No.:	System Rated Output Watts		
	Electrical No	Total System Cost: \$		
Phone:	Fax:	Expected Incentive Rate: \$/kWh		
E Floatria Hility (Attach all pages of	monthly statement)	·		
5. Electric Utility (Attach all pages of	Service ID:	Make Payments to: □ Purchaser □ Seller		
□ PG&E □□ SCE □ SDG&E □ BVE	Service ID.	Other Incentives:		
Billing Period:	KWh Used:	Source/Record No.:		
8. Declaration				
The undersigned parties declare und	der penalty of perjury that the in	nformation in this form and the supporting documentation		
submitted herewith is true and corre		e and that the following is true: irchased within the last 18 months,		
		naser's electrical needs at the site of installation		
0 0,		ve site of installation for its useful life or the duration of the lease		
agreement and	•			
4. The generating system will I	be interconnected with the distr	ribution system of the electric utility identified above.		
The undersigned parties further acknowledge that they are aware of the requirements and conditions of receiving funding under the				
Emerging Renewables Program (ERP) and agree to comply with all such requirements and conditions as provided in the Energy Commission's ERP Guidebook and Overall Program Guidebook as a condition to receiving funding under the ERP. The undersigned				
Purchaser authorizes the Energy Co	mmission during the term of th	ne ERP to exchange information on this form with the Purchaser's		
electric utility to verify compliance w	· ·			
Purchaser Si	gnature	Equipment Seller Signature		
Print Name:		Dist Name		
		Print Name:		
Signature:	Date:	Signature: Date:		
Necessary Supporting Documentation		<u> </u>		

- 1. All pages of a monthly electric utility bill.
- 2. Agreements to purchase and install equipment.
- 3. Payee Data Record (Form STD-204) if payee identified has not previously been paid by the Energy Commission.

CEC- 1038 R8 (1-2005)

**R8** 

# PILOT PERFORMANCE BASED INCENTIVE PRELIMINARY RESERVATION CONFIRMATION FORM EMERGING RENEWABLES PROGRAM

Mail completed form to: RENEWABLE Record **ERP Preliminary Reservation Confirmation** ENERGY Number California Energy Commission PROGRAM 1516 Ninth Street (MS-45) Sacramento, CA 95814-5512 Payee Number CALIFORNIA ENERGY COMMISSION Date CFA: SRO Watts: Eliaible Cost: \$ CEC use only 1 Date for LTR: Incentive Rate \$/kWh Confirmation of Preliminary Reservation Amount has been granted a 12-month preliminary reservation in the amount for a maximum of \$ kW photovoltaic generating system to be installed at generating system is configured and comprised of the system equipment described in Section 2 below. The 12-must be completed by the applicant and submitted to the Energy Commission once the system is installed and becomes fully operational. The Preliminary Reservation Confirmation Form must be submitted with the necessary supporting documentation prior to the noted expiration date. In addition, the applicant must provide written authorization allowing the applicant's utility or web-based monitoring system administrator to share applicant data with the Energy Commission for auditing purposes. Upon review and approval of an applicant's Preliminary Reservation Confirmation Form, the Energy Commission will issue the applicant a PBI Final Reservation (CEC 1038-R9), which identifies the applicant, the installed system, the amount of funds reserved for the installed system, and the three-year final reservation funding period during which incentive payments may be claimed by the applicant. 2. System Equipment (PV Modules, Inverters, kWh Meters and DAS) lumber Manufacturer Model Total System Price \$ Amount paid by customer to date: \$ Orientation: W. SW, S, SE, E, Other Tilt: None, <15, 15-30, 30-45, >45 Tracking system type: **Modifications** Has any of the information in section 1 or 2 above changed? ☐ Yes ☐ No If no, skip to the next section. If yes, note the changes below before submitting this form. **Reporting Method** Reporting party: Reporting method: Date of first meter read: Initial reading (kWh):

5. Declaration

FINAL DRAFT GUIDEBOOK -	- <del>DECEMBER 2004JANUARY 2005</del>
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The undersigned parties declare under penalty of perjury that the information provided in this form and the supporting documentation submitted herewith is true and correct to the best of their knowledge. The undersigned parties further declare under penalty of perjury that the following statements are true and correct to the best of their knowledge:

(1) The electrical generating system described above and in any attached documentation meets the terms and conditions of the Energy Commission's Emerging Renewables Program and has been installed and is operating satisfactorily as of the date stated below.

has or will be issued utility approval to operate the system as interconnected to the distribution grid.

The rated electrical output of the generating system, the physical location of the system, and the equipment identified were installed as stated above and in any attached documentation.

(2)

4) Except as noted above, 'there were no changes in the information regarding the seller, installer, purchaser, generating system specifications, installation location, or price from that information provided in the Preliminary Reservation Request Form originally submitted by the undersigned.

The electrical generating system described above and in any attached documents is property interconnected to the utility distribution grid and

The undersigned parties acknowledges that they are aware of the requirements and conditions of receiving funding under the Emerging Renewables Program (ERP) and agree to comply with all such requirements and conditions as provided in the Energy Commission's ERP Guidebook and Overall Program Guidebook as a condition to receiving funding under the ERP. The undersigned Purchaser authorizes the Energy Commission during the term of the ERP to exchange Purchaser information on this form with the Purchaser's electric utility in order to verify compliance with the ERP requirements. If a copy of the utility "letter of authorization to operate" the system is not submitted with this Reservation Confirmation form, the undersigned Purchaser understands that he/she is obligated to submit a copy of this letter to the Energy Commission once it is received.

Purchaser's Signature	Equipment Seller's Signature
Print Name:	Print Name:
\$ignature:	Signature:
Date:	Date:

Also Attach: 1. Final Initial-building permit and final inspection signoff; 2. Final purchase and installation invoice(s) confirming the total amount paid for the system equipment and installationamount paid; 3. Five-year warranty (CEC 1038 R3 form); 4. Utility letter of authorization to interconnect the system or the Purchaser's authorization form to access Purchaser's utility data, 5. Utility bill or other proof of electrical service and consumption at the site of installation if not previously provided; 6. Purchaser's authorization allowing the Purchaser's electric utility or web-based monitoring system administrator to share generation data from Purchaser's system with the Energy Commission for auditing purposes; 7. Payee Data Record (STD-204), if not provided with initial application or the payee was not previously paid by the Energy Commission in the last two years.

CEC- 1038 R9<del>2</del> (12<del>07</del>-2004)



# PILOT PERFORMANCE BASED INCENTIVE PROGRAM FINAL RESERVATION CONFIRMARTION EMERGING RENEWABLES PROGRAM



To claim payments mail invoices to: ERP, PBI Payment Claim California Energy Commission 1516 Ninth Street (MS-45) Sacramento, CA 95814-5512

Final Reservation Number
Pavee Number

CALIFORNIA ENERGY COMMISSION	
1. Final Reservation	
	ed a final reservation in the amount of \$at an
	gy produced. This Final Reservation is issued pursuant to the Energy
	(ERP) Guidebook and based on Purchaser's previously submitted
	ry Reservation Confirmation applications and the supporting
	Reservation is specific to thekW <sub>(CEC)</sub> photovoltaic generating
system (System) installed at	and described in Section 2 below, and may not be transferred to
another generating system or system location.	This Final Reservation expires on and will not be
	under this Final Reservation will be made to as
	ation Request application. Payments under this Final Reservation
	on date by submitting a proper payment claim using Invoice Form
	upporting documentation to verify the actual energy produced by the
	this Final Reservation, payment claims may be submitted for energy
	period for a period of 90 days after the expiration date of the
	s 90-day period will be denied. Under no circumstance will the
incentive payments made under this Final Rese	rvation exceed the amount reserved under the reservation.
Purchasor assumes full responsibility for the on	eration and funding eligibility of the System. Incentive payments will
	and eligible for funding, and the necessary payment claims and
	Energy Commission. If any equipment is added to or removed from
	on period, the Purchaser must notify the Energy Commission in
	count of funds reserved will be reduced accordingly and the Purchaser
	system is increased in size, the funds reserved will remain the same.
	eriod will not change. If, as a result of system changes, the
Purchaser or System is no longer eligible for fur	
	<del>- 9,</del>
As a condition of receiving incentive payments u	under the pilot Performance Based Incentive Program, Purchaser
agrees to participate in an evaluation process w	hereby the Energy Commission or its representatives may conduct
telephone interviews and/or on-site visits, and a	nalyze System performance data.
2 System Equipment (PV Modules, Ir	nverters, kWh Meters and DAS)
Number Manufacturer Model	Orientation: W, SW, S, SE, E, Other
	Tilt: None, <15, 15-30, 30-45, >45
	<u> </u>
	Tracking system type:
	Tracking system type.
3 Initial Meter Reading and Data Coll	ection Information
Monitoring System Administrator:	
Reporting Method:	
Date of first meter read:	Initial reading (kWh):

CEC-1038 R10, (1/2005)

**R10** 

# PILOT PERFORMANCE BASED INCENTIVE PROGRAM INVOICE FORM EMERGING RENEWABLES PROGRAM



Please submit invoice to:

ERP, PBI Payment Claim
California Energy Commission
1516 Ninth Street, MS-45
Sacramento, CA 95814-5512

# <u>Instructions for completing this form are provided on the reverse side.</u>

Please print or type

1. Final Reservation #:	2. Circle Invoice Period:	<u>January-March</u> <u>April-June</u> <u>July-September</u> <u>October-December</u>		
	<u>Periou.</u>	<u>July-September October-December</u>		
2. Purchaser Information	3. System Information	<u>on</u>		
<u>Name:</u>	Nominal System S	<u>Size:</u>		
Address:	Installation Addres	<u>SS:</u>		
Phone #:				
6. System Production During Invoice Period (in kWhs)				
	Read Dates	Monthly Totals (kWh)		
First Month				
Second Month				
Third Month				
<u>Total</u>	<u>Generation</u>			
7. Declaration				
I, (print name and title) of the above identified Purchaser hereby declare under penalty of perjury that the information provided in this invoice is true and correct to the best of my knowledge and that I am authorized to submit this invoice on the Purchaser's behalf. I further declare under penalty of perjury that I have reviewed the electricity production data included in the attached statement(s), and, to the best of my knowledge, that it does not overstate the amount of electricity that was produced by the above identified System during the invoice period. I further declare under penalty of perjury that the following statements are true and correct to the best of my knowledge: (a) the above identified System had not been changed or altered from the system as described in Purchaser's Final Reservation; (b) at all times during the invoice period the above identified Purchaser and System were eligible for funding under Purchaser's Final Reservation and the Pilot Performance Based Incentive Program of Energy Commission's Emerging Renewable Program; and (c) Purchaser has complied with the requirements and conditions of receving funding under the Pilot Performance Based Incentive Program as set forth in the Energy Commission's Emerging Renewables Program Guidebook and Overall Program Guidebook				
included in the attached statement(s), and, to the best of electricity that was produced by the above identified Syspenalty of perjury that the following statements are true identified System had not been changed or altered from Reservation; (b) at all times during the invoice period the for funding under Purchaser's Final Reservation and the Commission's Emerging Renewable Program; and (c) Productions of receving funding under the Pilot Performa	f my knowledge, the stem during the invalence and correct to the the system as deseabove identified be Pilot Performance archaser has compace Based Incentive	at it does not overstate the amount of voice period. I further declare under best of my knowledge: (a) the above cribed in Purchaser's Final Purchaser and System were eligible a Based Incentive Program of Energy blied with the requirements and the Program as set forth in the Energy		
included in the attached statement(s), and, to the best of electricity that was produced by the above identified Syspenalty of perjury that the following statements are true identified System had not been changed or altered from Reservation; (b) at all times during the invoice period the for funding under Purchaser's Final Reservation and the Commission's Emerging Renewable Program; and (c) Productions of receving funding under the Pilot Performa	f my knowledge, the stem during the invalue and correct to the the system as deseabove identified by Pilot Performance archaser has compine Based Incentivok and Overall Pro-	at it does not overstate the amount of voice period. I further declare under best of my knowledge: (a) the above cribed in Purchaser's Final Purchaser and System were eligible a Based Incentive Program of Energy blied with the requirements and the Program as set forth in the Energy gram Guidebook		

# **Appendix 2 - Tips for Consumers**

This appendix provides some basic guidelines for those who are not familiar with renewable energy systems and may be interested in learning more.—\_The Energy Commission has a variety of sources of additional information about choosing a renewable energy system, finding retailers or estimating a system's energy output. This information can be obtained by calling (800) 555-7794 or visiting the Energy Commission's website at [www.consumerenergycenter.org].

# **A.** Choosing a Contractor

### C.

Make sure you hire a contractor licensed by the Contractors State License Board. State law specifies that any job that costs \$500 or more (labor and materials) requires the services of a licensed contractor.—As with any large purchase decision, the Energy Commission recommends that you obtain at least 2 or 3 bids before selecting an installer or agreeing to purchase a renewable energy system.—Your final selection should be based on various factors including company reputation, warranty service, and installed system price.—The Contractors State License Board [www.cslb.ca.gov] provides helpful consumer information, has a process to address complaints against contractors, and maintains information about the status of contractor licenses.—The Energy Commission recommends that you check the status of the installer's contractor license for your own protection.

# B. Choosing a Retailer

The Energy Commission maintains a list of renewable energy system retailers to make it easier to find products in your area.—\_The list is available by contacting the Energy Commission or visiting its web page.

# C. How Much Energy Does a System Produce?

The annual amount of energy from an eligible renewable energy system can be estimated and in most cases can be guaranteed by the system retailer or installer.—\_For photovoltaic systems, the annual amount of sunlight energy (insolation) at a given location in California is predictable and typically does not vary more than 5 percent from year to year; however, the annual energy produced by a specific solar system is influenced by many factors. These factors include the orientation (tilt and direction) of the system, wire length and size, shading, module output mismatch, inverter efficiency, module cleanliness, and other factors.—\_A qualified solar system installer should be able to evaluate these factors and estimate an average energy output in monthly or annual kilowatt hours (kWh) for a given system at a specific location.—\_Similarly, the annual amount of wind energy at a given location can be estimated, but is somewhat difficult to predict accurately without sufficient site wind speed data.—\_It is important to note that

wind turbines are rated at a wind speed of 28 miles per hour and some wind turbines do not produce any energy until the wind speed exceeds 12 miles per hour.

Battery backup systems are an option when purchasing a solar or wind energy system and have the advantage of providing power during a utility outage.—However, adding battery back-up significantly increases the cost of the generating system, requires additional maintenance, and reduces the useful energy output of the system by about 10 to 20 percent compared to a similar system without batteries.

Be sure to compare the energy output that contractors prepare before choosing a contractor.—\_The energy output from a system is a much better indicator of the system performance than is the systems rated output.—\_Also, be sure to verify that your system has an easy to read meter installed that measures the energy produced in kilowatt hours.—\_A meter is required by the ERP so that you will be able to determine if your system is operating properly.—\_The utility meter only provides the net energy used at your home but does not tell you how much energy your system produces.

You may wish to consider purchasing a pre-designed packaged system to reduce the chance of safety or performance problems with mismatched equipment.—Of course, all systems are not the same and may not suit your particular situation.—Also, be sure that your system warranty clearly identifies the responsible party for repairing your system in the event of a malfunction or break down.—Although you may be able to obtain lower prices by purchasing system components and equipment separately, keep in mind that the money you save may be more than offset by increased installation costs and lower energy output because of mismatched equipment.—This, in turn, could affect your warranty coverage.

System prices vary depending on the technology used, equipment type, local labor rates, site conditions, and other factors.—\_The following table lists ranges of system prices and annual energy production that are typical for many photovoltaic and wind energy system installations.

Table 2 - Typical Photovoltaic and Wind Energy System Prices and Energy Production

Technology Type	Typical Energy Production (kWh/year)	Typical Installed System Prices <sup>1</sup>
Photovoltaic Systems <sup>2</sup>		
1 kW	1,200 to 1,400	\$7,000-12,000
2 kW	2,410 to 2,810	\$12,000-20,000
10 kW	12,050 to 14,050	\$60,000-90,000
Wind Energy Systems <sup>3</sup>		
3 kW	4,990 to 8,500	\$12,000-18,000
10 kW	8,400 to 16,440	\$30,000-50,000

- 1. Price examples are for 2002.— The incentives will decrease to promote similar reduction in price.
- 2. Manufacturer ratings at standard test conditions.—PV calculations based on (STC kW\*5.5 hrs/day)\*(365 day/yr.)\*(0.6 or 0.7 discount factor).—The discount factor is a rough estimate of various loss factors.—See "A Guide to Photovoltaic (PV) System Design and Installation, June 2001, (P500-01-020) for further information.
- 3. Wind calculations based on manufacturer's predicted monthly energy production for a site with average wind speeds of 11 mph and 14 mph.

# Appendix 3 - Criteria for Listing Components as Eligible

This Appendix summarizes the criteria used for listing which components can be used to create a renewable energy system that is eligible for a rebate from the Renewable Energy System Rebate program.

The equipment must meet national or internationally recognized electrical standards or other appropriate criteria. Until the equipment is listed it is not eligible and no funding will be reserved.—Equipment that has not met the aforementioned requirements will not be placed on the lists.

Systems using components that are not listed as eligible will not be issued a reservation or a payment. If a component becomes decertified according to the testing requirements described below, and is removed from the Energy Commission's lists of eligible components, applicants may be required to modify their systems by replacing the decertified component with a certified component before a payment is issued.

Generating equipment (solar modules, wind turbines...), inverters, and performance meters are periodically added and removed from the lists of eligible equipment.

### A. Photovoltaic Modules

All flat plate photovoltaic modules must be certified by a nationally recognized testing laboratory as meeting the requirements of the Underwriters Laboratory (UL) Standard 1703.—For concentrator modules, manufacturers of concentrator photovoltaic systems must provide acceptable evidence to the Energy Commission for each model of system they wish to sell under this program that the module model is listed by UL, or other nationally or internationally recognized testing institution, using test procedures and requirements as appropriate for the intended use.

### **B.** Solar Thermal

No standards exist at present for solar thermal electric generating systems. In lieu of certification, manufacturers of solar thermal systems must provide acceptable evidence to the Energy Commission of one year of reliable operation for each model of system they wish to sell under this program.

### C. Fuel Cells

All fuel cells must be certified as meeting the requirements of American National Standards Institute (ANSI) standard z21.83-199 for fuel cell power plants.

### D. Small Wind

There are two options to achieve ERP eligibility for small wind systems:

1. Small wind turbines must be certified as meeting the requirements of a small wind turbine-specific safety and/or performance standard adopted by a national or international standards setting body, including, but not limited to IEC (International Electrical Code) 61400-2.

### <del>or</del>OR

2. Manufacturers of small wind systems must provide monthly data of average energy produced (kWh) and average wind speed for one consecutive year for each model of system they wish to be considered eligible for this program to demonstrate reliable operation of that model of equipment at a site with average annual wind speeds of at least 12 mph.

### E. Inverters

All inverters <u>must</u>should be certified as meeting the requirements of UL 1741. However, in the case of large inverters, where the size of the inverter is larger than any other inverter listed on the list of eligible equipment, a reservation may be granted if the applicant submits a signed statement acknowledging that no incentive will be paid for any part of the system unless the inverter passes a field test meeting the requirements of UL 508C and Rule 21 (utility interconnection) at each site. Payment for such a system will only be made when the inverter is shown to meet either UL 1741 or the combined UL 508C and Rule 21 standard. In addition, for each model of inverter further testing is required to be done by a qualified qualified-Nationally Recognized Test Laboratory<sup>15</sup> to remain eligible for this program. Beginning April 1, 2005, only inverters that who have completed the testing will be listed as eligible equipment.

Inverter ratings for each model will be determined according to sections of the test protocol entitled "Performance Test Protocol for Evaluating Inverters Used in Grid-Connected Photovoltaic Systems" prepared by Sandia National Laboratories, Endecon Engineering, BEW Engineering, and Institute for Sustainable Technology, October 14, 2004 version. This version of the report is available on the Energy Commission web site at www.consumerenergycenter.org/erprebate/equipment.html. The tests must be performed in accordance compliance with sections 3, 4, 5.1 and 5.2. The following tests are required:

Maximum Continuous Output Power. (Entire-Section 5.4 shall be performed in its entirety for test condition A of Table 5-2) with the following exceptions:

 1) (the test shall be performed at an ambient temperature of 40 °C, rather than 45 °C, for test condition A only, and 2) the dc Vnom may be selected

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<sup>&</sup>lt;sup>15</sup> Nationally Recognized Testing Laboratories shall be those laboratories that have been recognized by the U.S. Department of Labor, Occupational Safety & Health Administration (OSHA), in accordance with Title 29 of the Code of Federal Regulations, section 1910.7, and are approved to conduct test UL 1741 under the scope of their OSHA recognition. A list of all current Nationally Recognized Testing Laboratories is available on OSHA's web page at www.osha.gov/dts/otpca/nrtl/index.html. Please note, not all of the Nationally Recognized Testing Laboratories identified on OSHA's list are approved to conduct test UL 1741.

<sup>&</sup>lt;sup>16</sup> This version of the test protocol is identified by the file name "InvertrTestProto\_041014.doc" as shown in the left-hand side of the footer on each page of the protocol.

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- by the manufacturer at any point between Vmin +0.25\*(Vmax-Vmin) and Vmin+0.75\*(Vmax-Vmin). It is not necessary to perform Section 5.4 for test conditions B through E of Table 5-2.
- Conversion Efficiency. (Section 5.5 shall be performed for test conditions s A, B and C of from Table 5.3, subject to the following: 1) the tests shall be performed with ) where dc Vnom equalling equaling is the same voltage as selected above for the Maximum Continuous Power Output test, 2) identified above. The tests are only to be performed from steps 1 through 8 of the test procedure (Section 5.5.1) shall be performed at 25 °C, and not at 45 °C, and 3) tTo reduce time for each test condition, begin at the highest power level and go to the lower power levels. If done in this order, it will only be necessary to wait for temperature stabilization only at the 100 percent power level. needs to wait for temperature stabilization. In addition, the unit only needs to be operated at full output power for one hour, rather than 2.5 hours, and no preheating is necessary if the Conversion Efficiency test is performed within 1 hour of full operation under test 5.4, provided the unit has not been exposed to ambient temperature of less than 22 °C.
- <u>Tare Losses. (Section 5.7.1 shall be performed in its entirety.)</u> It is not necessary to perform the tests under Section 5.7.2 or Section 5.7.3.

<u>Please note that the tests for Power Foldback (Section 5.8) and Inverter Performance Factor/Inverter Yield (Section 5.9) are NOT required.</u>

The data and reports resulting from these tests for Maximum Continuous Output Power (Section 5.4), Conversion Efficiency (Section 5.5) and Tare Losses (Section 5.7.1) must be provided to the Energy Commission and will be made public. The inverter tested must utilize be the same hardware and software configuration evaluated during the UL 1741 certification test.

The methodology for rating inverters on the Energy Commission list is based on the weighted inverter efficiency measured at various load points, at three quarter's load. Weighting inverter efficiency will be determined with the following weighting factors:

DC Input	<u>Weighting</u>
Power Level	<u>Factor</u>
<u>10%</u>	<u>0.04</u>
<u>20%</u>	<u>0.05</u>
<u>30%</u>	<u>0.12</u>
<u>50%</u>	<u>0.21</u>
<u>75%</u>	<u>0.53</u>
<u>100%</u>	<u>0.05</u>

The Energy Commission also plans to review if changes should include adjusting the ratings for inverters with battery-backup to account for losses inherent in battery backup systems.

# F. Metering Criteria

Meters must retain the kilowatt-hour production data in the event of a power outage and must be easy to read for the customer's benefit.—\_The meter must measure the total energy produced by the system in kilowatt hours (or watt hours) and have a manufacturer's uncertainty specification of plus or minus five percent.

For payments in the pilot performance- based incentive program, where payments will be made on actual energy produced, meters and associated data acquisition systems must be able to read and report revenue grade kWh.

## G. Other Technologies

New technologies may be added by petitioning the Energy Commission, through the appropriate Committee.—Applicants must submit the proper documentation satisfying of all of the following criteria:

- 1) Financial assistance is required for these technologies to become commercially viable.
- 2) The technology must be commercially available with at least one vendor available for the sale of the system.
- 3) Vendors of any generating systems employing the technology must offer at least a five-year full warranty on the entire generating system.
- 4) The technology must show at least one year of demonstrated reliable, predictable, and safe performance by a full-scale facility using this technology under field conditions.
- 5) The available data must show that generating systems using the technology have a useful design life of at least 20 years.
- 6) The technology must be designed so that it can produce grid-connected electricity.
- 7) The technology represents a new electricity generating process not well-represented among existing grid-connected renewable generating facilities, rather than some evolutionary or incremental improvements to renewable technologies used in existing renewable resource technology generating facilities (examples of such evolutionary or incremental improvements will be a) an improved blade design for wind turbines, b) less expensive well drilling techniques for geothermal, or c) a more efficient burner design for a biomass plant).
- 8) The project must be designed exclusively for the purpose of producing electricity for on-site use or sale (excluding demonstration projects that may sell to one specific customer), in contrast to a research or demonstration facility, which is designed primarily for collecting additional research data.

# **Appendix 4 - Maximum System Size Calculations**

This appendix describes the methodology used to determine the maximum system size eligible for incentives from this program.— The system size limitation will not affect systems less than 10 kW because the average annual residential electricity consumption in California is about 7000 kWh/yr.— Commercial loads are almost certain to be higher.— The maximum size of system that would primarily offset this average load, given conservative system production, is about 13 kW (200% \* 7000 kWh / (.12\*8760)).

# A. Maximum System Size Calculations

The Energy Commission will determine the maximum size of eligible systems as follows:

# 1. New or expanded site electrical load

In the case of applicants with new or expanded facilities, where there is no electricity bill to attach or where the existing electricity bill does not reflect the applicant's expected expanded consumption, the applicant must submit an electricity bill when the system is complete or submit a signed statement by an architect, engineer or electrical contractor that the requisite electricity consumption is occurring or will occur at the site.

Applicants who are awarded Reservations based on new or expanded loads will only be paid the full amount of their requested reservation once they have submitted a bill that is consistent with their new or expanded estimated consumption and have otherwise satisfied the requirements for requesting a rebate payment.—In most cases, applicants with systems 10 kW or less need only submit a bill verifying grid connection at the site of installation.

The Energy Commission will check the submitted electricity bill(s) for usage consistent with the expected load, and calculate the appropriate incentive payment as described above.—If the Energy Commission calculates a reduced rebate amount, the applicant may submit subsequent utility bills within the following three months to receive their full reservation amount, provided there are sufficient program funds available at that time to make an additional payment.

# 2. Peak load capacity option

A customer may submit documentation that the proposed system is not greater than 200 percent of on-site peak demand (in kW) during any month.—Documented historical information can be a utility statement within the last 12 months.—For a new customer load or addition to present load, appropriate documentation can be a detailed energy use calculation, signed by a licensed electrical contractor.

The Energy Commission will calculate a "benchmark" production for the system using the following formula:

Benchmark Energy Produced\_\_= System Capacity(kW)\_\_x\_\_1050kWh/year<sup>17</sup>.

This Benchmark Energy Produced (BEP) will be compared to the estimated annual consumption based on the utility bill submitted with the application.—If the BEP is less than 200 percent of the estimated annual consumption, the full rebate requested will be reserved. If the BEP is greater than 200 percent of the estimated annual consumption, then the rebate reserved will be reduced by an amount equal to the ratio between the estimated annual consumption and the BEP.

The Energy Commission will compare the estimated annual consumption to the consumption reflected on the electricity bill submitted with the reservation form.—In cases where the estimated annual consumption appears to be inconsistent with the electricity bill submitted (for example, when the monthly consumption shown on the electricity bill is less than 8.5 percent of the estimated annual consumption), the Energy Commission will request additional information from the applicant, and will not process the reservation until satisfactory information is received.

If the installed system exceeds the size limits justified by the applicant, then the incentive would be calculated based on the maximum allowable system size.

<sup>&</sup>lt;sup>17</sup>— The annual energy produced by a photovoltaic system is influenced by many factors, including the amount of insolation (sunlight) at a particular geographic location, the orientation (tilt and direction) of the system, the degree of cloud cover, any shading that affects the system, and cleanliness.— The BEP calculation above estimates the amount of energy produced by a system with a relatively low 12% capacity factor; that is, a system with relatively poor location, orientation, etc.— This represents a conservative estimate of the energy that will be produced by a system.— Most systems, with more favorable characteristics, will produce a greater amount of energy.— However, a system installed in a relatively poor location with the intent of offsetting the onsite load should not be rejected through the use of an optimistic or even an average estimate of energy production.— Therefore, using the BEP calculation for a relatively poorly performing system allows these systems to be eligible, consistent with the intent of SB 90.— Using this calculation for all systems minimizes the administrative cost of predicting the energy produced by the system in relation to the load at the site.

# **Appendix 5 - Atypical Incentive Applications**

# A. New Construction (Building Permit)

# **B.** New Housing Development

New home developers may purchase and install renewable energy systems as part of a new development before selling the home.—\_The renewable energy system is often a feature that is included in the new home price.—\_In most cases it is unclear who will purchase the home, when it will be sold, and how much the end-user pays for the system.—\_Unlike individuals, developers will often purchase the system equipment in bulk and have an agreement with a subcontractor to install systems on various homes in the development.

New building construction projects (not remodeling projects) will receive an 18 month reservation period, but applicants must include a copy of the building permit with the reservation request. Applicants with an 18 month reservation period are not eligible for a time extension.

New construction reservation requests for systems greater than 30 kW in aggregate are not required to include an installation labor contract when installation is being performed by the builder's employees, but must still submit a purchase agreement for the equipment and separately list installation labor costs.

To obtain a rebate reservation for a new housing development where the sum of individual installed systems will total 30 kW or more, the developer may submit the following items instead of submitting separate documentation for each address:

- One Reservation Request Form (CEC 1038 R1) for the entire new housing development. The Reservation Request Form must be signed by the homebuilder (purchaser) and the seller (retailer, wholesaler or other supplier) of the electricity generation system. The reservation request must be accompanied by a detailed summary sheet containing the same information requested on the Reservation Request Form for each site (i.e., the physical addresses, generating system information, and system cost for each of the systems to be installed). This information may be listed directly on the form or incorporated by reference to the summary sheet or to the master purchase agreement.
- One master purchase agreement for the entire new housing development.—The master purchase agreement(s) for the equipment and installation labor must contain the following information: signature of homebuilder (purchaser) representative, seller of the generating equipment, and installer (unless a letter or installation agreement for each subcontractor stating the price charged for specified homes in the housing

development is provided); a list of the physical addresses of the system installations; the quantity, make and model of the electricity generating equipment and inverters to be installed at each address; the total cost of the equipment and/or labor; total eligible system cost and rebate requested for each address.

- 3) Payee Data Record (STD-204) for the recipient of the rebate payment.
- 4) Utility Interconnection.—As with other new construction, submit a simple statement identifying the electric utility and acknowledging that proof of interconnection will be provided prior to a payment claim.
- Final inspection signoff (at time of payment) submit documentation- showing final inspection signoff for the housing development or an interconnection agreement listing all of the addresses at which the utility confirms that an eligible electricity generation system was correctly installed. See "Reservation and Payment Process" for additional paperwork required at the time payment is claimed.

# C. Systems Installed by Sellers or Contractors for Their Own Personal or Business Use

Renewable energy system sellers (retailers, wholesalers, manufacturers...) or contractors who arrange to have a system installed by a separate company on their own home or place of business may qualify for the full rebate only with certain documentation.—\_To receive a reservation, the applicant must submit documentation consistent with that of an individual independently buying a system.—\_When an equipment seller purchases equipment for the seller's own use, the purchase agreement (or proof of purchase) must be between the purchaser and the generating equipment supplier, in most cases, the wholesaler).—\_The supplier must be identified as the seller on the application form and must be registered with the Energy Commission. If the labor installation is done by a contractor on his own home or place of business, the application will be treated as an owned installed system unless the contractor hires an independent company to do the system installation.—\_The purchase and installation agreements must be between two independent entities.—\_Documentation of a purchase between two principals or owners within the same entity or between spouses is not adequate, nor is a purchase agreement if signed by the same individual.—\_The warranty requirements are the same as for self-installed systems.

# D. Adding to Existing Systems

Additions to existing systems will only be allowed for systems that met past program requirements and were partially funded by participating in the Energy Commission's program. For these projects, the Energy Commission has the records and documentation identifying the equipment that was installed previously and the program warranty and system equipment standards and warranties that were met by the originally installed equipment.—\_The newly added generating equipment must be selected from the current lists of eligible equipment and meet the current guidebook requirements.—\_All of the current program eligibility criteria and documentation requirements apply to the added equipment.

If an addition (or a reservation request) to an existing system is made after July 1, 2004 and is at least 18 months after the final permit signoff from the last reservation, the rebate calculation will be based on the incremental watts added.

\_For all other situations the rebate calculation will be based on the rated output of the final system installed (old and new equipment) as if the application were a new application on the date submitted minus the amount already paid.—\_Under no circumstance will the rebate for the added equipment exceed the current rebate for the incremental watts added.

Sample Calculation:

Existing reservation for \$7,3509,800 @ 3.004.00 per Wwatt (2,450 Wwatts) Adding 1 kW for total of 3,450 watts (no inverter capacity limitation) Current rebate level is \$2.803.20 Total rebate available is:

 $3,450 \text{w} \times \frac{2.803.20}{\text{Ww}}$  -for contractor installation =  $\frac{9,66011,040}{\text{M}}$ 

Additional rebate available in this case:  $$\frac{9,66011,040}{2} - $\frac{7,3509,800}{2}$  reserved =  $$\frac{2,3101,240}{2}$ 

However, if an addition to an existing system is made after July 1, 2004 and is at least 18 months after the final permit signoff from the last reservation, the rebate calculation will be based on the incremental Watts added by technology. Because the rebate for wind decreases with the system size the incremental calculation will be based on the incremental system size above the pre-existing system.

<u>Sample Calculation – Incremental Calculation for Wind Systems</u>

Existing System paid \$12,500 @ 2.50 per Watt (5,000 Watts)

Adding 6 kW for total of 11,000 Watts (no inverter capacity limitation)

Current rebate level is \$1.90/W for first 7.5 kW and \$0.90 per Watt for increments above

The rebate available for the new addition is:

2,500 W x \$1.90 Watt+ 3,500 x \$0.90 per Watt (for contractor installation) = \$7,900

## E. Special Requirements for Leased Systems

To ensure that leased systems are not prematurely removed from the site of installation, leased systems must remain at the original site of installation for a period not less than five years.—\_The lease agreement must specify a lease term of no less than five years and must limit the lessor's remedies, in the event of breach, to monetary damages.—\_The lease agreement may not permit the lessor to remove the system from the original site of installation because of the lessee's default or breach of the lease agreement.—\_In addition, the lease agreement must clearly demonstrate that the program rebate or incentive benefits the lessee by directly and exclusively reducing the lease payments for the eligible system.

In determining the total cost of leased systems, the Energy Commission will not consider any finance, interest, insurance, maintenance costs, or any lease processing fees.

The rebate <u>or incentives</u> for leased systems will be paid to the retailer of the system or to the lessor as the system purchaser.—<u>The rebate will not be paid to the lessee</u>.

The proof of agreement to lease must contain two sections.—It must contain the proof of agreement by the lessor to purchase the system from the seller as described above.—It must also contain the lease agreement between lessor and lessee and identify the physical address of the system, the quantity, make, and model of major system components, the lease term or duration, terms of payment, the total cost of the lease itemized so as to identify the capital cost and any financing, interest, insurance or maintenance cost and any fees, the total amount to be paid by the lessee over the term of the lease, indication that the rebate benefits the lessee by directly and exclusively reducing the lease payments for the eligible system, and the signatures of both the lessor and lessee.

# F. Time Extension Requests

Time extensions to a reservation <u>will not be available for new applications submitted on or after January 19, 2005. Beginning January 19, 20055 reservations approved under prior versions of the ERP Guidebook may obtain a time extension without require prior approval by the Energy Commission's Renewables Committee.</u>

<u>For applicants who had six or nine month reservations approved under prior guidelines, a single three month extension will be granted if both of the following conditions are met:</u>

- 1. The reservation expired or expires on or after December 1, 2004, and
- 2. The applicant has not previously applied for a time extension and had that request denied by the Energy Commission's Renewables Committee.

For those applicants, a three month extension of the original expiration date \_and\_will be granted considered if simply requested in writing.\_using the Time Extension Request Form (CEC 1038–R6) in Appendix 1.—These tTime extension requests must simply identify the reservation ID<sub>T</sub> and purchaser name. \_and be signed by the purchaser.meet the following criteria and be supported with documentation:

- 1. Circumstances were beyond the control of the reservation holder that prevented the system from being installed as described in the reservation request. Describe the need and reasons for the request.
- 2. The initial permit to install the system must have been approved within two months of the date that the reservation was approved (provide a copy of the initial permit). If there was a problem in the permitting process and it was the cause of delay, provide documentation, such as any correspondence with the building department, to support this explanation.
- 3. Cost documentation must demonstrate that the system purchaser has incurred at least 50 percent of the reserved system's total purchase price. However, in cases where this amount exceeds the purchaser's contribution then the purchaser may still retain 10 percent of the total system cost and meet this cost documentation requirement. Attach copies of paid invoices, checks or other verifying documentation to the request form.

A time extension request shall be limited to three months of additional time for six month reservations. No time extensions are permitted for reservations with 18 month reservations. When If approved, the extension period will be added to the reservation expiration date, regardless of when the request was approved by the Renewables Committee. Only one extension may be granted per reservation. If the request is approved, a new confirmation form will be mailed to the purchaser and seller (if appropriate). If disapproved, the applicant will be notified and instructed to reapply to the program under the terms and conditions in effect at the time that they reapply.

Extension requests must be submitted before the reservation expires. Requests made after the reservation expires will not be considered.

Approval of a request for a change in expiration date will not change or modify any other reservation condition. Complete the CEC 1038 R6 form and mMail the time extension request with supporting documentation to:

ERP Extension Requests California Energy Commission 1516 9<sup>th</sup> Street, MS-45 Sacramento, CA 95814